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WORKING AND LIVING

If you stop to consider the work you have done
And to boast what your labour is worth, dear,
Angels may come for you, Willie, my son,
But you'll never be wanted on earth, dear!

—RUDYARD KIPLING.

IT must surely be the claim of everyone who writes upon labour problems to share the belief of that fine essayist—the late Mr. Maurice Hewlett. He writes: "I should like to repeat that I believe myself to be really disinterested, that I am neither master nor man, belong to no political party, and that if I have any ulterior motive it is that I may help as many people as possible to be as happy as possible."

There are two classes of people—those who believe that we must work to earn a standard of living, and those who believe that a standard of living can be maintained without work. Although everyone is in earnest in giving thought to this question, the cynic is at liberty to subdivide his classes into those who work and those who only think about it. The probability is that by far the greatest number of our industrial difficulties have been due to our attempts to compromise between these two attitudes of mind. Our aim has been to find the highest standard of living compatible with the minimum amount of labour. As an objective, it is perfectly intelligible and natural, and as a national ideal it is not unworthy of a civilised nation. We have been working along these lines for many generations, although we may not have been aware of it. It is the nice adjustment of the two factors which constitutes the whole problem, and makes for success or failure. It seems obviously impossible to have any standard of living unless we work for it, just as it is impossible to raise the standard without working harder. For the last few years we have been trying to prove the contrary; we have been thinking too much about the one, and too little about the other. We have been experimenting with a minimum amount of labour, and we are loath to admit that we have upset the delicate adjustment.

The deciding factor in adjusting the economic balance is the amount produced in relation to the cost of labour. Goods cannot be sold if prices are too high; and the alternatives are either a lower basis of cost in relation to output, or insolvency. At the moment there is insufficient demand for the worker's services at his price, and this is the secret of our industrial troubles. The proof of the argument is that the State has been compelled to come into business with us and make up the economic gap either through doles or subsidies.

There are certain points upon which Labour has a right to be satisfied before consenting to any reductions in wages or increases in the hours of work. Efficiency in management and modern equipment are important matters in labour costs. It is possible that these factors have been neglected in the past, but we are inclined to think that the spur of competition ensures a high standard of efficiency. A further point requiring consideration is the cost of distributing our goods. There evidently exists a strong feeling that there is a leakage between the manufacturer and the consumer, and that it absorbs too large a percentage of the selling price.

One of the evils of thinking too much about standards of living and too little about the obligation to work is that we have confused cause and effect in our domestic affairs. We are determining our wages on the cost of living—a proceeding which is a complete reversal of sound economic principles. The result is exactly what we might expect; the cost of living remains high. A profound economic and logical truth is exposed in a recent joke in *Punch*, in which the notice of the cheaper loaf produces the observation from an out-of-work that he knew this was going to happen—"They've redooced the dole." It is heavy work analysing a joke, but it is the plain truth that the payment of doles, or any other form of subsidy, results in keeping up the cost of living. The situation becomes completely Gilbertian when we have to fix our wages in line with our doles.

We are back full circle to our original point. We have fixed upon a standard of living which we are not earning; we have done everything we can to keep it fixed, and yet we grumble at the cost of living and are amazed at our unemployment figures. There is a sentimental objection to accepting a remedy which is unpalatable, just as it is sentimental foolishness to say that theoretically we earn a remarkably high wage per hour if there were sufficient work to keep us employed. It is futile to talk about a standard of living without relation to a REAL wage. We may yet compromise between our standard of living, in terms of wages and leisure, but it is in the nature of things to-day that we should want to claim both.

Someone made an observation the other day to the effect that the one bright feature in the industrial world was the position of the building industry. What he meant to have said, no doubt, was that the building industry was in a very fortunate position compared with other industries. From a number of economic causes and effects the building trade is busy, and high rates of wages are enjoyed. Artificial conditions are behind it, and with a full knowledge of this, it is wiser to say that the building trade is fortunate in being in this position while other industries are struggling through a period of depression. The position is abnormal, and we appreciate the significance when we realise that under normal conditions we would expect the conditions to be reversed. The building trade depends ultimately upon the success or failure of the general trade of the country, despite the extraordinary artificial conditions of the moment. For some years the building trade, with a solid backing of subsidies and public support, has been operating successfully outside the laws of economics. This is the measure of the good fortune which it would be optimistic to expect to continue indefinitely.

Sooner or later the building trade may have to take up a true economic position alongside other industries. We do not believe that the industrial future of the country is assured if other industries are granted similar conditions to those enjoyed by the building trade. We refer to this subject now, simply because we should be sorry if the building trade and other industries generally relapsed into the philosophy of the man who mistook luck for success. Meantime, we take the luck as we find it.

NOTES.

Architectural Education. ONE of the questions raised at the International Congress on Architectural Education was the inadequacy of school teaching unless backed up by actual office experience. Beyond this there is also the value of personal influence and direction which did have a definite value in the days of pupilage. Of course, the dull unambitious pupil obtained very little benefit from his pupilage, but the active desires and efforts of an enthusiastic pupil always secured him great advantages in getting something of the values of personal influence and help. We have the evidence of the President of the R.I.B.A. as to the extreme value to him of his two years occupation as a clerk of works, and it might almost be claimed that an experience of that kind gives the nearest approach possible to a realisation of an architect's responsibilities in the practical details of his profession. In a short article on the conclusions to be derived from the recent International Education Congress given in the Book of Proceedings, Sir John Sulman emphasises one of the most important and most neglected part of an architect's education, namely, that practical knowledge which cannot be obtained in collegiate or office work, and for which the experience as a clerk of works offers the best solution.

The Port of London Building. Now that the hoarding is taken down from the ground in front of the Port of London building in Seething-lane, we may realise what a great improvement is here effected on the general amenity, and how effective in its mass and dignity is that frontage of Sir Edwin Cooper's fine building. The great structure at last stands free of its surroundings on its own island site, though it seems unfortunate that a greater clearance could not have been effected round about it.

Waterloo Bridge. THE amazing suggestion that the end arches of Waterloo Bridge should be preserved in the building up of another bridge of steel construction to take its place sounds more like an ironical joke than anything serious. A suggestion like this causes one to wonder how many, or how few, comprehend the value of the bridge in its design and setting. We note that a good deal more can be said on this subject, and it would doubtless form a good text for a lecture on Ideality.

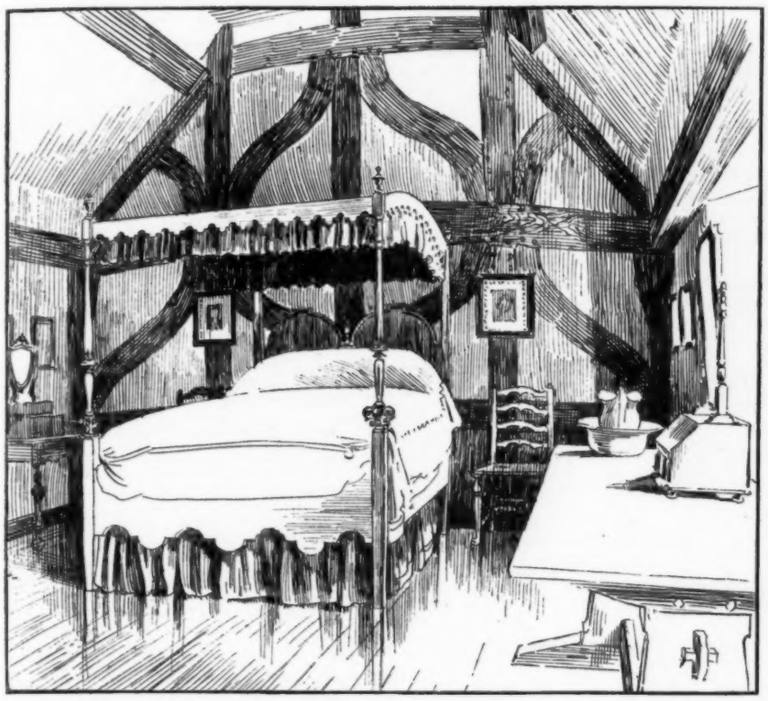
A Minister of Fine Arts. WE are periodically accustomed to the putting forward of a Ministry of Fine Arts, which, with its affiliated Committees of Taste all over the country, is to secure for us the higher interests of the arts and wiser decisions on all that affects them. If art could be organised like "rubber," and machinery could effect for us what is lacking, there might be less to say against it. A correspondent on the subject is of opinion that a Ministry of Fine Arts would, by some kind of magic, effect for us more immediately right results and that were we thus endowed a solution of our troubles would at last be found. Of whom will this new body, which is to radiate on all sides such decisive wisdom, be composed? Inevitably of much the same people who have failed—if they have failed—to effect this result in the past. The same people only under another name! Yet such is the strange superstition of the power of machinery that we have only to make a new organisation and all will be well! By calling the same thing by another name we shall effect what we have not effected under the old ones.

The Status of the Arts. WE are not at all sure the interests of art are helped by adding to their official status, and are inclined to demur when we are told that "the establishment of a Ministry of Fine Arts would add to the status of architecture," &c. Such bureaucratic tendencies are more likely to imperil the best interests of art. Have the multiplication of societies, and the activities of officials attained so much for us that we should add more? Unless we can show that a Ministry of Fine Arts will effect for us what is not yet effected by the multitude of existing organisations, and the multiplying of officials, such a ministry means nothing more than that we are adding another, and so obscuring still further the real issues which lie elsewhere.

Railings. A DISCUSSION of much interest in regard to railings covers so many considerations that there are many sides to it. We are in much agreement as to the general rightness of the view which condemns unnecessary railings; for there are numbers of instances in which such railings are a mere survival, a habit continued from custom, without regard to practical requirements; and such might well be removed. On the other hand instances which have been referred to—such as the railings at the British Museum—include the work of Alfred Stevens, and there is not so much intrinsic beauty scattered about London that we can afford to disregard, the importance of preserving it. And in another sense this applies to the railings which surround the Abbey on the north side. These iron railings are very good and characteristic of their period, becom-

A Reproduction of the Parthenon in Concrete.

[This replica of the Parthenon has been erected in concrete to serve as an art gallery at Nashville, Tennessee. The concrete has been tinted to reproduce the exact colour which was applied by the Greeks to relieve the glare of the white marble. The bas-reliefs are all moulded in concrete.]



A Modern Bedroom SIR EDWIN LUTYENS, R.A., Architect.

ingly spaced with their Portland stone pylons dividing the rails, and they are part of a traditional London which should render them secure. It is in our streets of dwelling-houses that unnecessary railings so much disfigure streets which would be improved without them. The primitive idea of the "compound," of shutting oneself off from one's neighbour, leads to the enclosure of countless front gardens which nobody sits in, and which the dividing walls make so dark that plants cannot flourish in them. The widening and opening out of such streets, merging these plots into a general scheme becoming to the whole length of the streets, the benefits of which all would share, would effect a great improvement.

The Value of Influences. THE influences which go to form part of our life and character are, we must admit, both subtle and far-reaching. We all probably judge a man more or less by the friends he associates with, and on the whole it is not an unfair judgment. No one with a fairly long record of life behind him can fail to realise how his life and character have been moulded by his associations and friends. The value of influences was graphically illustrated in a conversation with a friend the other day, who recalled an instance in his experience of a very pleasant kind. We were speaking of a certain man who had won distinction in the architectural world, and he said that, during his experience as a visiting architect to the Architectural Association, he took the opportunity to tell a student how he thought a design he showed him might be greatly improved. On his next visit this student had so fully realised the value of the criticisms that he had transformed a poor humdrum sort of design into one of some real distinction, and, indeed, of so good a quality that the visiting architect felt he was quite unable to produce it himself. This student passed on to a continued and marked success, and the visitor may therefore take some real satisfaction in having given some direction to one who had the wit to grasp its value. Though the student is now dead, he produced work of quite exceptional quality before he died.

The Sargent Exhibition. THE very large and appreciative gathering at the Academy on Wednesday for the private view of Sargent's exhibition was rewarded by one of the most distinguished and interesting exhibitions ever seen at the Royal Academy. Even if the normal value of the works did not exceed half a million pounds, as is estimated, there can be no doubt of its great attraction, which was probably largely due to the great many portraits of well-known people, which largely preponderated over the landscapes. We hope the suggested memorial to this great painter, which is likely to take definite shape, will do something to encourage art in its best forms of expression.

The Restaurant, British Section, Paris Exhibition.

MESSRS. EASTON & ROBERTSON, Architects.

GENERAL NEWS

Professional Announcements.

Mr. Manning Robertson, A.R.I.B.A., has transferred his practice to Provincial Bank Chambers, 3 and 4, College-street, Dublin (Telephone, Dublin 2016). His English practice will be carried on in co-operation with Mr. Geoffrey Fildes, A.R.I.B.A., of 73, St. George's-road, London, S.W.1.

Mr. W. E. Trent, F.S.I., of 6, Broad Street-place, E.C.2, has relinquished his practice on taking up the appointment of Architect and Works Superintendent to the Provincial Cinematograph Theatres, Ltd., New Gallery House, 123, Regent-street, W.1. In future the practice will be carried on by his son, Mr. W. Sydney Trent, at the same address.

Change of Address.

Mr. S. Rowland Pierce has removed to 15 Gower-street, Bedford-square, W.C.1. Telephone: Museum 9952.

Architect's Estate.

Lieut.-Colonel Peter George Fry, D.S.O., architect and surveyor, of Weston-super-Mare, has left the net estate of £16,198.

R.I.B.A. Registration Committee.

Meetings of the R.I.B.A. Registration Committee are now being held at No. 28, Bedford-square, London, W.C.1, the premises lately occupied by the Society of Architects. All communications in connection with the Committee should be addressed to Mr. C. McArthur Butler, Secretary to the Registration Committee, at that address.

Bradford's Proposed Infirmary.

The Board of Management of the Bradford Royal Infirmary has decided to proceed with the building of a new infirmary to cost £500,000.

Proposed Manchester Housing Estate.

The Manchester City Council propose to purchase the Wythenshawe Estate of 4,500 acres, at a cost of £358,850, upon which to erect 3,600 houses; sewage works alone will cost £545,000.

Proposed Mills for Manchester.

Arrangements have been made for the flotation of a silk mill at Hyde and another at Diggle, near Mossley. The Vistra Company, of Berlin, propose to erect a factory at Hyde for the manufacture of vistra staple.

Concrete Houses.

Owing to the success of their hundred concrete houses, Oxford City Council has decided to continue to build in this material.

The Ministry of Health announces that 24,000 concrete houses were erected in the United Kingdom during the twelve months ended December 31.

Proposed Hull Bridge.

The Hull Corporation is seeking sanction for the construction of a new North Bridge, at a cost of £275,000.

A New Spitalfields Market.

We understand that within the next twelve months a new vegetable and fruit market, to cost £2,500,000, will be opened at Spitalfields by the Corporation of the City of London as a supplement to Covent Garden. The scheme has involved the demolition of many slum areas.

Allerton Park, Liverpool.

Allerton Hall and Park, of forty-three acres, have been given to Liverpool Corporation by the sons of the late Thomas and Elizabeth Clarke, in memory of their parents. The Hall, built in the seventeenth century, will probably be used as a branch library and art gallery, and the grounds will become a public park.

Westminster Bank.

The directors of Westminster Bank, Ltd., have declared a final dividend of 10 per cent. in respect of the £20 shares, making 20 per cent. for the year; and a final dividend of 6¼ per cent. on the £1 shares, making a maximum of 12½ per cent. for the year. The dividends will be payable (less income tax) on February 1.

Barking Sewage Scheme.

Barking Urban District Council, Essex, propose to carry out a sewage scheme at an estimated cost of £120,000. This has become necessary because of the housing development in the Barking portion of the Becontree estate by the L.C.C.

Brighton Improvement Scheme.

The Brighton Town Council propose the laying out of a boulevard one mile long on the main London-road, and the construction of a £100,000 beach bathing pool.

L.C.C. Slum Clearance.

The L.C.C. propose to carry out a re-housing scheme for the Zoar-street area south of the Thames.

Lauriston Castle, Edinburgh.

The late Mr. and Mrs. Reid have left Lauriston Castle, its library, art collection, and grounds, together with £36,000, to the Nation.

Painter-Etchers.

Mr. Paul Drury, Mr. Ian Strang, and Mr. Louis C. Rosenberg have been elected Associates of the Royal Society of Painter-Etchers and Engravers.

Bristol Building Schemes.

The Bristol Corporation propose to erect a new electrical power station at Portishead at an estimated cost of a million pounds, a thousand more houses on the Sea Mills site, and a water storage tank at Ham Green Hospital at a cost of £4,479.

Anderson & Webb Scholarship.

The R.I.B.A. (Anderson & Webb) Scholarship in Architecture, at Cambridge University, is tenable for three years from October next. Particulars may be obtained on application to Mr. E. Bullough, Gonville and Caius College, Cambridge, before February 1.

COMPETITION NEWS

New Building Society Offices, West Bromwich.

Designs are invited for new offices for the West Bromwich Permanent Benefit Building Society. The competition is limited to architects within a radius of fifteen miles of Birmingham. Premiums of £100, £75, and £50 are offered. Mr. W. Alexander Harvey, F.R.I.B.A., is the assessor. Applications, with a deposit of £2 2s., should be sent to Mr. John Garbett, secretary, 301, High-street, West Bromwich. Designs have to be sent in by March 31.

Town Hall and Library, Leith.

Edinburgh Town Council has decided to obtain competitive designs for Leith new Town Hall and Library, and the City Architect has been in touch with Sir George Washington Brown, P.R.S.A., with a view to the conditions being adjusted.

Enlargement of Wisbech Town Hall.

The President of the Royal Institute of British Architects has nominated Mr. W. H. Ansell, F.R.I.B.A., as assessor in this competition.

New Prize Fund for London University.

The Senate of the University of London has accepted the foundation of a prize fund of the yearly value of £25 offered by the proprietors of *Concrete and Constructional Engineering* to mark the coming-of-age of that periodical this month. The competition, which will be open to students at the University School of Architecture, will deal with design in reinforced concrete structures.

Elementary School, York.

In connection with the proposed erection of a new elementary school on the Tang Hall estate, a special committee of the York Education Committee has visited schools recently erected, or in course of erection, at Darlington, Stonebroom, and North Wingfield, Derbyshire, and Blackpool. These schools were selected as demonstrating the latest developments in the provision of elementary school accommodation and the most economical methods of construction. A draft plan of the proposed school has been prepared and approved, and it is proposed to invite local architects to submit designs and estimates, in accordance with conditions to be supplied, on the basis of the draft plan submitted and the method of construction recommended by the Sub-Committee.

Competitions Open.

Cardiff	Nov. 27	Jan. 14
Art Gallery and Museum, Birkenhead. Limited to competitors practising within 20 miles of Birkenhead since January 1, 1923. Premiums: £250, £175, £100. Sir Robert Lorimer, A.R.A., assessor. £2 2s. deposit. Apply Curator, Central Public Library, Birkenhead	Oct. 16	Jan. 30
Public Memorial, Blackpool. Mr. E. Bertram Kirby, F.R.I.B.A. assessor. Apply to Mr. D. L. Harbottle, Town Clerk, Town Hall, Blackpool. Deposit £1 1s.	Dec. 11	Feb. 13
Australian War Memorial, Canberra. Open to architects of Australian birth. Apply High Commissioner, Australia House, Strand, London	Aug. 14	Mar. 31
Public Hall, Topsham. Premiums £50, £40, and £30 respectively. Mr. Walter Cave, F.R.I.B.A., assessor. Last day for questions, Jan. 1, 1926. Designs to be sent in by April 1, 1926. Conditions from the Clerk to the Parish Council, Topsham, on deposit of £1 1s	Jan. 1	April 1
Australian National War Memorial, Villers Bretonneux, France. Limited to Australians under special conditions. Apply Military Headquarters in capital city of each State, or High Commissioner's Office, Australia House, Strand, London. £2 2s. deposit required	Dec. 25	April 30
Papers on subjects connected with Heating and Ventilating. Two prizes of £10 10s. and one of £5 5s. offered by the Institution of Heating and Ventilating Engineers	Dec. 25	May 1
Royal Society of Arts Competitions for Industrial Designs. Apply Secretary, Royal Society of Arts	Jan. 1	June
Royal National Eisteddfod of Wales, Swansea. Competitions: (1) National Parliament House of Wales (Prize, £100); (2) Street Facade to a Large Stores (Prize, £25); (3) Set of Measured Drawings of Architecture (Prize, £25). Apply for programme to publishers, Messrs. Morgan & Higgs, Heathfield-street, Swansea (1s. 2d. post paid). Mr. Arthur Keen, F.R.I.B.A., Assessor	Nov. 6	July 12
Incorporated Architects in Scotland: (1) Rowand Anderson Medal and £100: City Art Gallery and Museum; (2) Rutland Prize (£50) for Study of Materials and Construction; (3) Prize (£10 to £15) for 3rd year Students in Scotland; (4) Maintenance Scholarship, £50 per annum for 3 years. Apply Secretary of the Incorporation, 15, Rutland-square, Edinburgh	Nov. 6	—
Plan for construction of Conference Hall, for League of Nations, Geneva. International Competition, Sir John Burnet being British representative on Jury of Assessors. 100,000 Swiss francs to be divided among architects submitting best plans. Programmes with R.I.B.A., 9, Conduit-street, where intending competitors should apply. Single copies from Secretary-General, League of Nations, Geneva, on payment of 20 Swiss francs.	Jan. 2	—
Secondary School for Girls, Worcester. Premiums 100 guineas and 50 guineas. Mr. Herbert T. Buckland, assessor	Dec. 11	—
Infectious diseases hospital, Blaydon, for 72 beds. (Date of application for particulars now passed)	Dec. 18	—
*Proposed new church, Monmouthshire	—	—
*Proposed new school, Gosport	—	—
*Proposed new hospital, Guisborough	—	—

* Competitions when "warned" or vetoed by the R.I.B.A. are starred.

The Kensington Cinema, Kensington Road, W.: Detail of Entrance Front.

MESSRS. W. F. GRANGER & J. R. LEATHART, AA.R.I.B.A., Architects.

At the opening of the meeting of the Architectural Association, held at Bedford-square, on Monday, Mr. H. S. Goodhart-Rendel, F.R.I.B.A. (President), announced that a special general meeting would be held on January 25 to consider the adoption of a new by-law to the effect that any person engaged professionally in the study or practice of architecture, whose usual residence was outside the County of London, or a member of any foreign association of architects, might be elected a temporary honorary member of the A.A. for a period not exceeding three months without the payment of entrance fee or subscription, and also without voting power; such temporary honorary members would be elected by the Council.

The Paris Exhibition, 1925.

Mr. HOWARD ROBERTSON, F.R.I.B.A., afterwards gave an address on the Exhibition of Decorative Arts held in Paris last year, and illustrated many of the buildings and exhibits by lantern slides. In the course of some introductory remarks he said decorative art, or any other art, did not stand by itself. It was the product and expression of some movement in the life of human beings, and was bound up with the other impulses characteristic of each epoch. It reflected general tendencies in the same way as did music and literature. In any period of progress and vitality there came a renewal of art expression, and they were at present at the beginning of such a period. But they were in, and of, the movement, and were too close to it for prophecy or even for selection.

Views of the Paris Exhibition would depend on the general view of what was termed the modern movement. They might consider this as a forward movement, as an attempt to express themselves in terms of art in a manner typical of and in harmony with the spirit of their epoch; or they might deplore even the faintest shadow of an evolution which might perhaps herald revolution, and see in modern art not progress but revolt. To the first view he inclined.

The Paris Exhibition, in his opinion, had been taken much too seriously as regarded its artistic achievements, and even as regarded the tendencies which were there manifested. It was a very sincere and earnest expression of dissatisfaction with past lethargy and pedantry, of the will to create, of vitality and youth in art. But those first tentative forms of a new expression could not be placed on a level plane of comparison with the highly-polished and refined forms of any period which had run through a considerable term of years. A Rolls-Royce car would stand comparison with a graceful horse-drawn barouche, but not so an early Benz or Daimler. And so, in fairness to both, judgment between the old and the new must be reserved until the young movement had sown its oats and found its true direction.

An exhibition, if it were to be a success as an exhibition, could never be a true reflection of any development of art applied to daily life. That was because the exhibition background was not the everyday background; the exhibition was a spectacle, and just as the stage spectacle demanded exaggeration and heightened effects, so must the successful art exhibits be pitched in a higher key. The Paris Exhibition, *quâ* exhibition, was a success, and the French, who had a highly-developed sense of spectacle and display, were amongst the most successful of the exhibitors. But remove, for example, exhibition furniture from its setting of a highly-keyed exhibition background, and all the values were altered. The necessity for maintaining an exhibition character developed tone and originality so long as exaggeration was conscious and controlled. But when exaggeration became second nature, as it could, and easily might, there was danger of serious qualities being displaced by caricature.

Architecture in especial suffered in exhibition displays. Architecture was a noble art, and in its highest expression an essentially permanent one. Exhibitions were rarely permanent, and an exhibition building must therefore be designed either as a building of permanent materials, which was illogical, or as a building of temporary materials counterfeiting permanence, which was ignoble; or, again, as a frankly *ad hoc* building of temporary materials, in which these materials were recognised and treated as such; in the latter case they had not so much real architecture as an illustration representing architecture in some particular phase or mood, a sort of frontispiece in three dimensions. No one should expect a serious or settled expression of "style," be it modern or period, in a temporary exhibition building, for an exhibition provided too inviting a field for experiments and research into possibilities which were impossible in ordinary practice.

Before proceeding to pictures of the exhibition, he would lay stress on some notable factors which had contributed to its artistic success. The first was collaboration. The major successes of the exhibition were due to the spirit of collaboration between architects and all craftsmen concerned; the ready public acknowledgment of that collaboration was a very noticeable feature. The second was the development of technique in handling of new and old materials, with its consequent incentive to fresh design. The third was the development of the abstract design sense in whatever medium or style-language it was applied, and particularly the recognition of the importance of geometrical forms and volumes.

As regarded the commercial success of the exhibition, there were two main contributory causes. One was the situation in the heart of Paris on the river banks, and the other the way the exhibition catered for women. As far at any rate as the French were concerned, the first of the decorative arts was the art of "l'élégance."

The lecturer then showed a number of lantern slides of the pavilions, and in the course of his brief description of each said that although the people in the countries for whom the pavilions were erected invariably liked them, none of them seemed to think their buildings had any natural characteristics; the Swedish visitors said, "We like the pavilion, but it is not Swedish," and that seemed to sum up the general impression of other nationalities.

Discussion.

In opening the discussion, Mr. H. CHALTON BRADSHAW said he would particularly like to congratulate the lecturer and his partner (Mr. Easton) on the excellence of the British Pavilion, which they had designed. When the conditions were made known, there were very considerable doubts in the minds of many eminent architects in this country as to whether an architect could be found to produce a good building while complying with such peculiar regulations as were laid down by the exhibition authorities. The conditions called for a building with a modern expression and of real originality, a very difficult task. It had been frequently said that the result was not representative of English architecture, but he thought it was a very successful contribution to the spirit of the exhibition. A building had been produced to comply with the conditions called for. Other difficulties to contend with, were a huge site and a limited amount of money; and before the building was half completed it was seen that it would be overshadowed by the Baroque building being erected by the Italians on the adjoining site of permanent materials, which did not appear to comply with the conditions. Generally, the buildings demonstrated that architects of all countries were anxious to express themselves in the simplest forms, and to respond to the desire on the part of the public for good design which did not necessarily involve great expense. The result was that the exhibition had a character for which there was apparently no precedent in any other great national exhibition. There were many curious buildings, but a careful study of them showed that tradition had never been discarded; even the Swedish building, which was thought very modern, owed a great deal more to the past than appeared on the surface. Generally, the architects seemed desirous of expressing themselves in the very simplest forms, and of making use of materials which would not be used in buildings of a more permanent character, and these effects were the direct outcome of the conditions imposed by the authorities; the buildings which were more removed from the type known as permanent were those which complied more with the conditions. The Italian Pavilion was built of permanent and precious materials which were a clear contravention of the rules. In all the buildings it was obvious that the architects, artists and craftsmen had worked conscientiously; they had each been given their own part and had succeeded in taking every advantage of it. The success of the exhibition owed a great deal to the choice of the site, and to the skilful way in which advantage was taken of existing amenities. There were various influences to be seen in the buildings, perhaps the most noticeable of which was the very strong influence of the mid-European group of artists, not only on their immediate neighbours, but on the French architects as well. The British Pavilion, among others, demonstrated the fact that beauty did not depend on over-decorated façades: at the same time it was seen that a craving for mere novelty often resulted in a building which lacked the one characteristic which would have justified its existence, namely, fitness for fulfilling the purpose for which it was built.

SIR LAWRENCE WEAVER said to his mind the chief lesson of the exhibition lay in the fact that hardly any country found any of its particular natural characteristics in the building by which it was represented; the movement now spreading across Europe was not national at all. The lecturer had referred to the collaboration of the authorities, but he feared there had been a lapse when they allowed the Italian Pavilion to be built; he thought all concerned with the British Pavilion had reason to complain at the dominating Italian erection being allowed to overshadow the British building. He was interested to see the fine pavilions and exhibits of some of the leading French firms, notably the dressmakers and stores, and did not expect that similar firms in this country would have gone to the same amount of trouble and expense.

MR. ARTHUR J. DAVIS said that, unlike most exhibitions, the Paris Exhibition was a financial success, which showed that a great many people had visited it several times, which they would not have done if they had not liked it. Some of the buildings were frankly disappointing, but it must be remembered that the architects and designers were set to design something that had never been done before. What pleased him most was the staircase in the Grand Palais, which had more effect on the visitor than could be shown by a photograph. The staircase was built over an existing staircase, which made the problem doubly difficult. Architecture on a large scale was notably absent, most of the buildings being on one floor; the only tall buildings were the most disappointing of all.

SOCIETIES AND INSTITUTIONS

R.I.B.A.

ROOMS FOR ARBITRATIONS, &c.

Convenient rooms for arbitrations, &c., are now available for hire at No. 28, Bedford-square, W.C. 1, at a fee of £2 2s. per day. All enquiries with regard to vacant dates, &c., should be addressed to Mr. C. McArthur Butler, at that address.

VISITS TO BUILDINGS.

A visit has been arranged by the Art Standing Committee to take place on Saturday, January 23, to the Second Church of Christ Scientist, Bayswater, and the Armenian Church, Kensington. Members desirous of taking part are requested to make early application to the Secretary, R.I.B.A., 9, Conduit-street, London, W. 1.

LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, clause 4 (*b*) and (cii) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary, R.I.B.A., stating the clause under which they propose to apply for nomination.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

AT the third general meeting of the session, held on January 8, at the Association's rooms, the President, Mr. Arthur E. McKewan, in the chair, Mr. John Swarbrick, F.R.I.B.A., of Manchester, delivered a lecture, illustrated with lantern slides, on the subject of "Robert Adam and his work." The lecturer divided his subject into two parts, giving firstly, an outline history of the Adam family; secondly, slides showing Robert Adam's work, giving a brief description of each view as it appeared. He pointed out that the whole family of four sons were well fitted and had every opportunity to become of first rank in their various spheres of life. Their father was a highly intellectual, influential and wealthy man and an architect. He could and did give his sons a chance of a good start in their careers. John, the eldest, was destined to look after the Scottish estates of the family. Both Robert and James were architects, while William, the youngest, was at one time a sort of builder's merchant.

As was so seldom the case, all the brothers seemed to have pulled well together, each in his own way helping the others. The youngest in the end also became an architect and was reputed to have completed some of his brothers' partly finished works at their deaths. Robert, the master hand, travelled and studied much abroad and was instrumental, largely through his social influence, in having prepared many sheets of drawings for publication. He paid particular attention to the architecture of an ancient people and state of society and culture which had previously been but scantily reviewed. He became an absolute fashion amongst the gentry and nobility of this land, of the time (it was a great time of building gorgeous mansions), and his clients included members of the Royal Family itself.

He appeared to have realised at the outset, what few before him had realised, that not only the bare structure and its ornamentation, but all its surroundings and furniture and fittings, and even household utensils, must each and every one be in harmony and direct character with the whole scheme if his conception could in any way present a perfect picture. So he designed everything and in a manner to fit the grand scheme. The amount of his work must have been truly prodigious. At one time he was a member of Parliament. Of course, he must have had a huge band of willing helpers, but all were governed or guided by his master hand.

The slides showed three distinct periods of his work. At first, especially noticeable in his interiors, his decorations and designs were of a bold, elaborate and somewhat heavy type; then there came a transitionary period before the final elegance, grace and refinement of his latter work.

A hearty vote of thanks to the lecturer was proposed by the Vice-President, Mr. Holland W. Hobbiss, who said that Adam, for all his planning and scheming in the grand style, designed houses that were lived in by people of to-day, and could be so inhabited, with little or no alterations to bring them up to modern requirements. Adam never lost his head and planned without proper thought for the amenities and domestic arrangements of those people who would have to live in them, as so many eminent men had done before.

GLOUCESTER ARCHITECTURAL SOCIETY.

UNDER the auspices of the Gloucestershire Architectural Society, Dr. Raymond Unwin last week delivered a lecture, illustrated by lantern slides, on "Town Planning," in the Bow Room of the Guildhall, Lieut.-Col. N. H. Waller (President of the Society) in the chair. Dr. Unwin said he knew that in Gloucester they had made a start in the question of considering town planning, and had, he thought, taken a very wise course of forming a committee which was drawn from a fairly wide area, so that they would, as a committee, be able in the first instance to look at the whole problem of Gloucester and its surrounding district from a comprehensive point of view. That was really the crux of the whole matter. We should begin to look at our cities from a more comprehensive point of view than during the last century or two it had been the custom in this and other civilised countries to do. At the same time it was useful to realise what was happening in other countries, and particularly so in America. There we could see conditions actually existing that were perhaps twenty years ahead of what was coming in this country, and from there we could learn things to avoid as well as things we ought to provide for in this country. He wanted to lay down two or three main principles. The first was that all their experience seemed to show that in planning and building all towns there was nothing to be gained by crowding. There was always a great temptation to crowd in towns, but there were towns where there was no crowding, and there were towns in which crowding could be prevented. Crowding had been tried both horizontally and vertically, and it had always come back to the same thing—that the evils of crowding were greater than any advantages that could be secured. The next thing to consider was that town planning was not a simple matter of widening a few streets, providing a few parks, and laying out a few boulevards. All those were good and proper in their place. Town planning began in a more fundamental way. It considered the general distribution of all parts of the town and its population. They had to begin to think of the town as a complete unit having parts in proper places, and with proper relations one with another if they were to function conveniently. One of the results of the haphazard growth was that parts of a town tended to get out of place, ending in confusion which led to a great deal of useless moving about. Open spaces for various purposes were necessary and important ingredients in a town. Left out, their absence spoilt the town. Towns had to be looked upon as definite organisms, and, like other organisms, they had to grow healthily to a certain size. They ought to grow, not by continually adding bits all round the fringe, but by definitely devised suburbs, which to-day were called satellite towns, suggesting they were dependent upon the main central city for very much of their life and culture, but having a localised life.

The Deputy Mayor (Mr. S. J. Gillett) moved a hearty vote of thanks to Dr. Unwin, observing that it was impossible to come to a city where the desirability of town planning was more needed than in Gloucester to-day.

Mr. J. H. Jones (Chairman of the Housing Committee of the Gloucester Rural District Council) seconded, and spoke of the opportunity of the villages around Gloucester as the nucleus of satellite towns.

The vote of thanks having been accorded, Dr. Unwin, in reply, said Gloucester had a beautiful cathedral, a river that was a great asset, and undulations which offered visions out of the town and of the town. They should have wide roads leading to their wonderful cathedral, and open spaces so placed that they ended in a picture of the cathedral. The position of villages as possible satellite towns was important and a proper thing to consider.

LIVERPOOL ARCHITECTURAL SOCIETY.

In connection with the annual dinner of this Society, which will be held on Thursday, February 25, at the Midland Adelphi Hotel, competitive designs are being invited from members for the outside cover of the menu to be reproduced in black and white, size about 8 in. by 5 in. Designs have to embody the words:—"The Liverpool Architectural Society (Incorporated), Annual Dinner, Thursday, 25th February, 1926, Menu." A prize of two tickets for the dinner is offered for the selected design. Designs are to be sent to Mr. Duncan A. Campbell, 51, North John-street, not later than February 6.

EDINBURGH ARCHITECTURAL ASSOCIATION.

Associate Section.

The Associate Section of the Edinburgh Architectural Association held their sixth meeting of the session in their Rooms at 15, Rutland-square, Edinburgh, on Monday, January 11, when Mr. T. H. Halliday, Edinburgh, delivered an interesting and educative Paper on "Domestic Hot Water Supply." The lecturer dealt with various systems of hot water supply for several types of buildings and illustrated those with diagrams. A discussion followed, in which a large number of members participated.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

To the Editor of THE BUILDER.

Incorporated Association of Architects and Surveyors.

SIR,—As I am still receiving correspondence asking for information about this Society, may I be allowed to state that, following the receipt of satisfactory assurances from the Secretary of the Surveyors' Institution regarding the protection of the rights of established practitioners in the Registration Bill promoted by them, or with which they were associated, I came to the conclusion that it would be a mistake to found a new association and therefore resigned from the above society and am not now a member.

A. HARRIS
(Widnell & Trollope).

Westminster.

Contract Documents.

SIR,—The attention of the Practice Standing Committee has been called to the letter on the above subject which appears in your issue of January 1. The Committee desire me to inform you that the opinion in question was given by them on one particular case after inspection of the various documents relevant thereto. It was not intended to apply generally and this point was made quite clear to their correspondent. Every case must be judged upon its merits and the documents applying to that case.

CHARLES WOODWARD,
Hon. Secretary, R.I.B.A. Practice Standing Committee.

NOTES ON AMERICA: II.—OUT OF NEW YORK

By F. E. BENNETT, A.R.I.B.A.

In the previous article under this title, a few remarks were made on buildings of several kinds, and something in general was said about New York. Here, three other important centres are touched upon and a few notes added about architects' offices.

WASHINGTON, the capital, is different from all other cities in the States. While all the others are stamped with a certain character which is peculiar to that continent and discernible in all of them, that character of largeness and grandness mixed with a tendency to gauntness and untidyness, Washington seems to share little or nothing in common with them. The whole aspect and atmosphere is different. The city seems to be set aside especially as the show member of the community, for which everything has been done to make it as beautiful and attractive as possible. Here one feels not only less of a stranger and more at home, but a greater sense of understanding with the American people. There is a repose and quality of refinement which would grace many an older city could they be borrowed, and one feels this is a place where the utmost has been done to get away from fixed ideas and the cruder side of ordinary existence; a place to be treasured as the heart of the nation, where citizens may go with their families to pay their respects. The whole life of the place appears to centre around the Capitol and the various Government buildings which, together with the fine system of parkways connecting them, completely dominate all other parts of the town and constitute the main body of it.

The first impression on entering the town and advancing towards these main features is one of green trees and white marble—the marble being generously used on the more recent buildings. Then, peeping over the trees at a distant point where the main axes of the lay-out cross, a huge obelisk, perhaps 400 ft. high, raised to the memory of Washington, is seen, probably the most direct and forceful thing of its kind ever erected. It is just one simple tower of masonry, hollow, square on plan, pointed at the top, and without a single moulding or ornament.

The Lincoln memorial is the third main feature of the lay-out. The temple which forms the main structure is approached first by avenues on either side of a long, narrow pool, and then flights of steps; a number of them lead up to the entrance where, through the portico, is seen the great marble statue of Lincoln, set back in the interior like that of Athenæ in the Parthenon, but in this case with the rear wall as a foil. The only other addition to the architectural motives is contained on the side walls, and consists of the two famous speeches of Lincoln carved into the masonry in large characters reaching from the floor to the ceiling. The Capitol, while not a building particularly excellent in detail, is good in its massing, and succeeds in dominating the town. By flood lighting its dome a striking effect is obtained at night-time.

Shops and Office Premises, N. Michigan Boulevard, Chicago.

Tribune Tower, Chicago.

Standing alone, a clear, white-coloured structure in a surrounding of rich green foliage and grass, the famous "White House" attracts the attention and compels admiration. It is a residence designed in the very best "Colonial" manner, with a tall portico and the slender columns typical of that style. Here the elected President takes up his official abode and receives the visitors who call in thousands to shake hands with him.

BOSTON.—While Boston is an American city in the full meaning of the word, it does not increase so rapidly as its neighbour, New York, and clings to old associations in preference to many of the modern innovations of the other city. The roads are curly, the buildings are short, the churches are old (some more than 200 years); the atmosphere is comparatively quiet and the language is softer. It is famous for its adherence to English prejudices and traditions. Here an Englishman can be understood readily and without having to repeat himself, the *a* in bath, rather, and similar words being pronounced our way. The main note of the architecture is provided by the old Colonial style, which continues well preserved in many parts of the city and forms the basis of much of the new work. Red brickwork, slender columns and fine exterior woodwork give the good old Georgian atmosphere.

The author happened to be in Boston on Independence Day—the day commemorating that on which English influence was finally removed from the country. The occasion was celebrated by a sort of grand Guy Fawkes day affair. From an early hour firework crackers were exploded in the streets by small boys. As the day progressed, larger boys assisted and exploded larger crackers. Later on young men came into the business. By the time night arrived the cracking spread over the whole city and everybody seemed to be doing it with a result something like a fierce artillery barrage.

CHICAGO, which stands at the south end of Lake Erie, serves as a market for the great agricultural and cattle-farming industries of the Middle West. When it is considered that no such place as Chicago existed 100 years ago, the most astonishing thing is how it manages to be so complete and up to date. Probably what caused its reputation of being the "tough" member among the larger cities is its professed aim in life to produce everything larger of its kind than anything ever produced before, and to do everything better than anybody else in the world can do it. Life is a race; the citizens are out to beat everybody, and they must have the maximum of everything. The size of the place increases rapidly; high and yet higher buildings are being put up; large portions of the town-planning scheme are frequently undertaken; new roads are being made, business increases, wages go higher and higher, and everybody wants a motor-car.

From the Public Free Library, anybody having a reader's ticket—an easy thing to have—may borrow as many as seven books at a time. The fare on a motor-bus is 5d.—just the same for a quarter or a five mile journey. Again, on the trains, for

Tribune Tower, Chicago, by Night.

[On right is the Wrigley Building, with the N. Michigan Boulevard running between.]

Chicago: apartment house buildings, etc.

short journeys to the suburbs the passenger buys at least 10 tickets at once, whereas if he worries the railway by taking a separate ticket on each occasion he has to pay five times as much for them. A new hotel is being built with bedrooms more than 40 stories above ground—the highest bedrooms in the world. On the North Michigan boulevard leading away from the "Loop," one of the busiest streets in the world, the stream of cars never ceases day or night.

The Tribune Tower appears to be a great success from the owners' point of view; everybody talks about it, everybody admires it, and thousands pay 1s. each to take the view from the top of it. Standing somewhat apart from the other skyscrapers, with a very fine chance to show off its beauties, its general shape as a mass is seen to be perhaps the most pleasant thing about it. Its relation of thickness to height is just sufficient to give it its true appearance of office building as well as tower. The window openings, which take away a great deal of the wall surface, and are sometimes criticised as being too superficial looking, with insufficient set-backs to hold them in vertical alignment, constitute, however, one of the building's best points, for despite the large amount of glass and the great height to the peak, the whole thing looks remarkably solid. It is the sort of building one gets very fond of after looking at it very often. There are a number of interesting details to which one becomes attached. The doorway is always interesting, being so strong and refined; the tracery and bits of Gothic ornament are fresh without being disrespectful. Let into the wall on the eye level near the front door are small stone relics from abroad of famous old buildings, one bit being the top of a pinnacle of Westminster Abbey. The hall inside, which is decorated with a treatment reflecting the outside, includes a quotation from Ruskin in large Old English characters laid into the floor.

OFFICES.—Most people who have not had the experience find it very difficult to believe some of the reports about the business methods, and particularly the report which relates how those who want to can nearly always go straight in and see the chief of a large business without any difficulty. Strange as it seems, the report is quite true. In many of the ordinary commercial offices—and including the bigger architects' offices—a visitor is received by the girl operating the telephone switchboard, or a stenographer. Often she doesn't ask him his business, but just tells him where to find the chief. His door is probably open and he is found already interviewing various other people. He may have three telephones, through which calls may come at any moment, and he will break off his conversation to answer them.

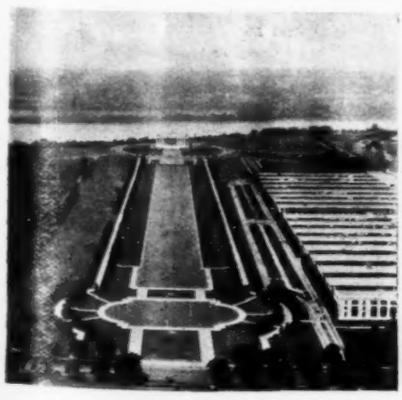
Now, supposing a young architect wants a job as an assistant in an office—what does he do to get it? He may answer an advertisement in the newspaper; he may apply to the Architects' Employment Registry, which is maintained on the ground floor of the "Architects' Building;" or he may obtain the normal sort of introductions to various practising architects. But these are not the normal way. The thing for him to do is to roll a few drawings under his arm, go straight to the office he thinks he would most like to work in, and ask for the head of the firm. Most likely he will be told to walk straight in and see this head. On the other hand, the little girl who receives callers may ask him, "Does he want a position?" After saying he does, she may say, "I think we want draughtsmen; will you fill out this form?" On this, the would-be assistant states his training, experience and salary required. After a short time, the chief draughtsman appears and demands to see the roll of drawings. If he thinks the applicant a reasonable looking fellow, he accepts him more on the strength of that than anything else, and probably wants him to start next morning at 8.30. While this is the sort of thing that happens in the very large and more commercial offices—offices where 30 to 100 men are employed—all the offices are not, of course, like this. Smaller offices, more on the scale of the English ones, are quite numerous and differ little from our own.

Lincoln Memorial, Washington.

Architectural draughtsmen with a fair all-round training can earn $50 (£10) per week. For a chief draughtsman, some offices will pay $100 (£20) per week. Englishmen are well received if they are prepared to fall in line with American customs.

The organisations inside these large offices, while varying considerably, are much alike in certain respects. Work commences sharp and early and everybody starts by taking off his coat. Draughtsmen are grouped according to their kind of work—architectural in one group, engineering in another; perhaps they will be on two sides of a long room, and, as in the case of one large firm, with two lines of drawing boards on each side. With a large number of assistants in an office, there is a general tendency to specialise. The business manager, the engineers, and the specification department, are usually distinct parts of the firm. The engineers may consist of separate men for steel work, sanitation, electricity, and heating. On the architectural side, there will probably be designers who do nothing else but design, "job bosses," detailers, and tracers. Sketch schemes to small scale, after being approved by the client, are handed over to "job bosses" to be worked out. The job bosses will have detailers and tracers to help them prepare all the drawings required.

A new assistant is supplied with an outfit of tracing paper, pencils, pencil scraper, rubbers, ink, erasing shield, and towel, and told to help himself from the cupboard when he wants anything else. Permanent drawings are made in the usual way with black ink on blue tracing linen, or with pencil on white linen, and details are made on white tracing paper. With very few exceptions, copies from these drawings are blue-printed. Plans and sections are hatched with certain conventional markings which have been laid down by the American Institute of Architects and come to be accepted by all architects and builders. They are never coloured. The drawings are put away flat, either in drawers, or hung like coats in a wardrobe. Each draughtsman has his own trestle table, about 3 ft. high, and uses light weight "T" squares with the drawing edge unsplayed and the cross piece shaped to fit the hand. Patent drawing boards with automatic apparatus are not popular, the good old method still being found more satisfactory.



Lincoln Memorial, from Washington Obelisk.

Arlington Cemetery, Washington. CARRERE & HASTINGS, Architects.

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ILLUSTRATIONS

A Branch Bank.

We illustrated last week the design for a branch office of the Westminster Bank, Ltd., which will shortly be built at the corner of Piccadilly and Albemarle-street. The design, which is being revised by Mr. W. Curtis Green, A.R.A., the architect, was placed first in a recent competition limited to four architects.

The Kensington Cinema.

In this building the architects have had the opportunity of designing and directing the complete scheme in detail. They are personally responsible for the design of the curtains, carpets, door furniture, hangings, the colour schemes, and lighting effects, in addition to the general design (externally and internally).

The building is a steel framed structure, and has a system of combined roof trusses and stanchions, each unit weighing sixteen tons. The auditorium has a clear internal span of 94 ft., the length being 125 ft., and the height from the lowest floor level to the crown of the coppered covered ceiling, 61 ft. The balcony girder weighs 60 tons and is 8 ft. 6 in. deep. The front portion of the building is occupied by the entrance hall, with main flanking staircases, pay box, lavatories, general office, and manager's room. The first floor has the main tea lounge, with secondary lounges under the rake of the upper portion of the balcony, service room, lavatories, and board room. A vomiturium leads from this floor to the balcony.

The second floor is utilised by a second tea lounge, with service, staff lavatories, publicity room and owner's room. The operating box, re-winding and generating rooms are on this level at the rear of the auditorium. The projectors have a 130 ft. throw to the screen. The roof was originally designed as a garden, but the scheme was subsequently abandoned. At the roof level and above one of the main staircases are the operators' rooms, with a trial film room.

At the stage end of the auditorium is the entrance to the cheaper seats, with lavatories on one side. On the other are the artistes' dressing rooms, lavatories, band practice room, and band store. Below the stage level are the staff rest rooms, vacuum room, plenum room, heating chamber, engineer's store, organ blowing chamber and organ chamber. The total seating capacity is 2,350.

The internal colour schemes are graded blue and varying tones of grey and old ivory for the first floor tea lounge; green and grey, with lemon-yellow ceilings and cornices, for the second floor tea lounge; amber, graded to orange and red, relieved by varying tones of French grey, for the auditorium. The curtains and seat upholstery are in royal purple with gold satin applique, and the seat woodwork is sycamore grey. The electric light fittings throughout are in antique green bronze with dyed vellum panels. The main ceiling fittings in the auditorium are 20 ft. over all, and the suspension cords are green and black silk. The marbles used in the entrance hall and staircases are lunel, rubane, cippolino, second statuary, and brêche sanguine; the ceilings are treated in old ivory colour with gilded portions.

Messrs. W. F. Granger & J. R. Leathart, AA.R.I.B.A., are the architects; Messrs. Farquharson & Christmas, M.M.Inst.Struct., the steelwork consulting engineers; and Mr. E. Wingfield Bowles, the electrical consulting engineer.

The builders were Messrs. J. T. Mears, Ltd., and the following were sub-contractors:—Granite, Goodale & Co., Richmond; stone, Impervious Stone Co.; faience, Shaws' Glazed Brick Co.; marble work, Fennings & Co., Ltd.; fibrous plaster, Stratford-on-Avon Guild; plain plaster work, Telling Bros., Ltd.; decorative paint work, Campbell Bros., Ltd.; metal work, ornamental and internal grilles, Messrs. Starkie, Gardner & Co., Ltd.; pay-box grid, Messrs. Singers, Frome; lamp, external urns, Messrs. Pirie & Co.; staircase balustrade, handrails, and barrier, Messrs. Fred Jukes & Co., Putney; flag masts, Messrs. Abercrombie, Birmingham; interior exit signs, and internal proscenium lamps, Messrs. Pearson; electric light fittings, Messrs. Higgins & Griffiths; electric wiring, Messrs. Blackburn & Starling; wall tiling, Messrs. Simpson & Co.; rubber flooring for cast steps to main staircase and marble mosaic, Arts Pavement and Decorations, Ltd.; curtains throughout and internal joinery, Messrs. F. Minter & Co., Ltd.; constructional steelwork, Messrs. Moreland, Hayne, Ltd.; lifts, Messrs. Waygood-Otis, Ltd.; kiosk, Messrs. Frederick Sage, Ltd.; seating and carpet laying, The Cinema Equipment Co.; carpets, Messrs. Coates, Perth; flood lights, G.E.C.; external flood lights, Holaphane Co.; internal directional signs, The K.F. Manufacturing Co.; lettering, The Dorian Studio; heating and ventilating, Messrs. Jeffries, Ltd.; plumbing and sanitary fittings, Messrs. Jennings; organ, Messrs. Hill & Norman Beard; cast stone, Atlas White Cast Concrete Stone.

The Luxfer Co. supplied the ornamental bronze sign, the composite windows with cast-iron mullions and fascias, the lantern lights and ceiling lights, metal casements, fire-resisting electro copper glazing and pavement lights.

War Memorial Schools, Brownhill-road Baptist Church, Catford.

These plans show the first portion of a larger scheme which will eventually include institute buildings in addition to the Sunday School buildings, shown upon the present plans. On the ground floor there are two small halls for junior children, with separate entrance and cloak rooms and a large kitchen. On the first floor there is a large hall for the general Sunday School and for lecture purposes, with cloak room. The hall is approached by two 4 ft. 6 in. staircases in concrete. The floor is carried by steel girders with concrete reinforced with B.R.C. fabric. The elevation has been designed to accord with the church, which the present architects built about twenty years ago, and the planning was dictated by the narrowness of the site allocated for Sunday School purposes. The builders are Messrs. John Garrett & Son, of Balham-hill. The architects are Messrs. Smee & Houchin.

Oliver Goldsmith's Home.

An appeal has just been made to the President of the Executive Council of the Irish Free State, by Mr. E. P. Gaston, of the Museum Galleries, London, to restore the early home of Oliver Goldsmith, at Lissoy, Co. Westmeath, which has degenerated from a rectory to a cattle shed, and a portion of which is in danger of collapse. It is estimated that £5,000 would be sufficient for this purpose.

EXHIBITION NOTES

THE SARGENT EXHIBITION.

ELEVEN galleries of the Royal Academy, containing over six hundred subjects in oil, water-colour, charcoal and bronze, have brought before us with a most vivid effect the art and personality of the late John Sargent. There surely was never a painter who portrayed with such truth and force so many of the distinguished men of our time, and one cannot but feel that all these graphic portraits ought to be kept together in some public place as a record of our times. Such wide-apart personalities as Lord Russell of Killowel and C. F. Penrose, the architect, are amongst the long list of notabilities who are here to be seen, and the character of each is most vividly set forth. Great canvases showing groups of fair women may not be amongst the finest accomplishments of this rare artist, but he has placed on canvas with unerring exactitude in admirable pose and colour such a series of portraits of men as no other modern painter has probably equalled. On the walls of the exhibition we find happily appearing between the portraits charming passages of brilliantly painted landscape, and one may find in the black and white room a number of sketches of the greatest interest, such as the "Judith Gautier" (257), or the studies of fishes (190). The charcoal sketch of "Tree" (512) is surely one of the most lifelike and vivid things ever done. Some of the architectural studies have a wonderful dignity and repose, as No. 95, a water-colour of "The Salute," but though he often essayed architectural subjects he was not uniformly successful; for instance, the "Doge's Palace" (86) is a very different tale to the "Piazza Navona," Rome (73); one gives the spirit whilst the other is little better than a travesty. It says something for the length and strength of this artist's career that we see in this exhibition the still attractive "Carnation, Lily, Lily Rose," painted before 1887. In the main this is an exhibition of portraits of men and women, but something of the artist's fine work for the Boston Library is also shown, and in the large gallery we have his painful canvas, entitled "Gassed," which for all its variety of detail is treated with much breadth and dignity. None of us have probably realised the wealth of effort which this wonderful artist has been putting forth in the past forty years, but the present exhibition opens one's eyes to it, especially when we remember that it is possibly only a fourth part of what he has done.

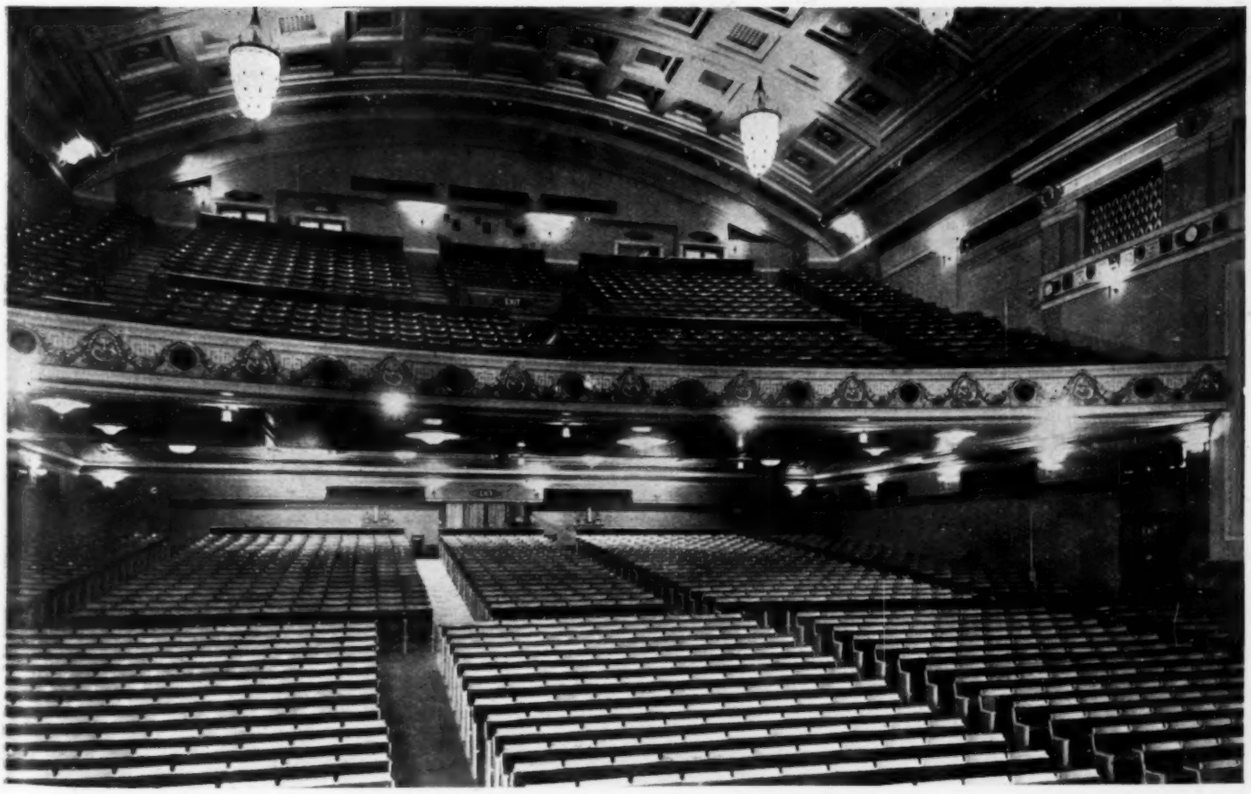
THE LEICESTER GALLERIES.

The three exhibitions at the Leicester Galleries carry one over some extremes of method. The flower paintings by Herbert Carmichael show a power of handling hardly to be excelled. In one example (No. 6), a painting of "Love-in-a-mist" we find a delightful decorative result in which the delicacy of treatment adds much to the value. There is another picture of delphiniums (No. 18) which gains by some little mystery of shade. If all the pictures showed more of the feeling in the two we have named the whole collection would have taken much higher rank. We always feel that flower painters seem to invite comparison with Fantin Latour, whose delicacy and sensitiveness give so much of the real charm of flowers; mere force and aggressiveness are less to our liking. The impressionist sketches of Purvis Flint are generally somewhat uncertain in effect, but he scores signal successes in his charming sketch of Genoa (13) and a fine impression of a cold grey landscape in Warkworth (43). If this artist were always at his best his work would be very notable. After the above-named collections one's appreciation of Les Peintres Graveurs becomes somewhat enfeebled. These drawings can only be realised in their full value, we imagine, by very young folk.

New Italian Academy.

The Accademia d'Italia instituted by Signor Mussolini will be inaugurated on April 21 in the Palazzo Giustiniani.

THE LOUNGE.



GENERAL VIEW OF AUDITORIUM.

The Kensington Cinema, Kensington Road, W.

MESSRS. W. F. GRANGER & J. R. LEATHART, AA.R.I.B.A., Architects.

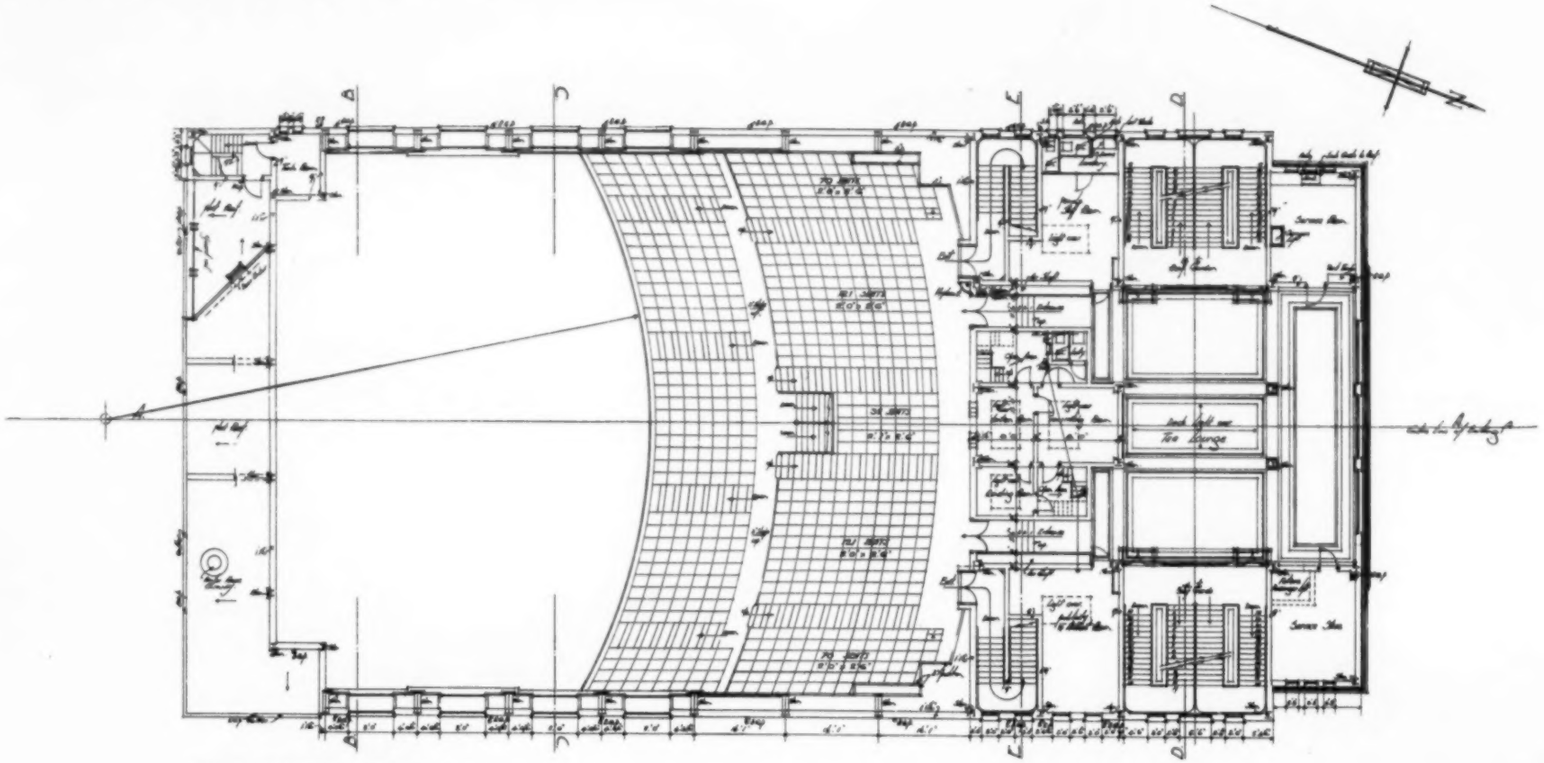
The Kensington Cinema, Kensington Road, W.: View in Entrance Hall.

MESSRS. W. F. GRANGER & J. R. LEATHART, AA. R.I.B.A., Architects.

The Kensington Cinema, Kensington Road, W. MESSRS. W. F. GRANGER & J. R. LEATHART, AA.R.I.B.A., Architects.

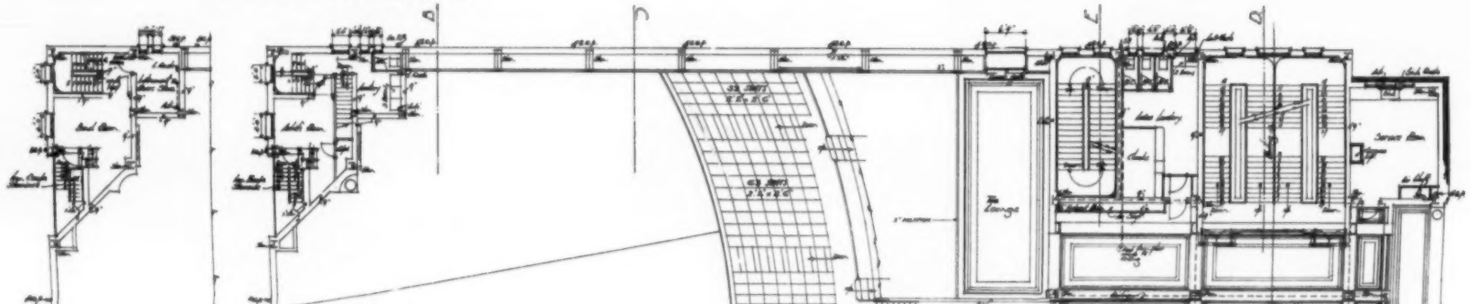
NEW CINEMA for J. T. MEARS ESQ:
in KENSINGTON ROAD LONDON:

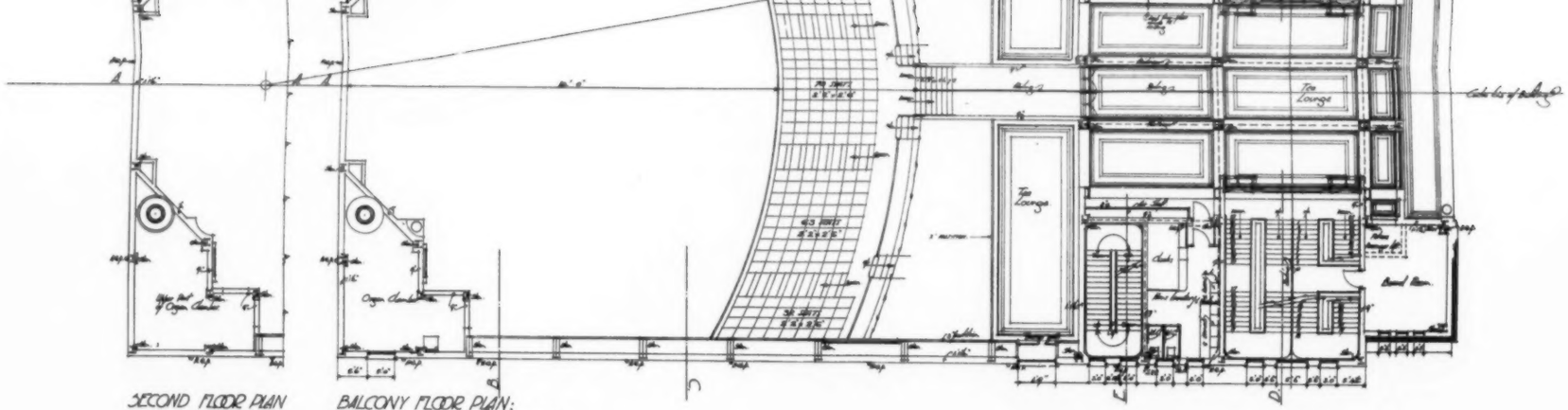
Scale of feet



UPPER BALCONY FLOOR PLAN:

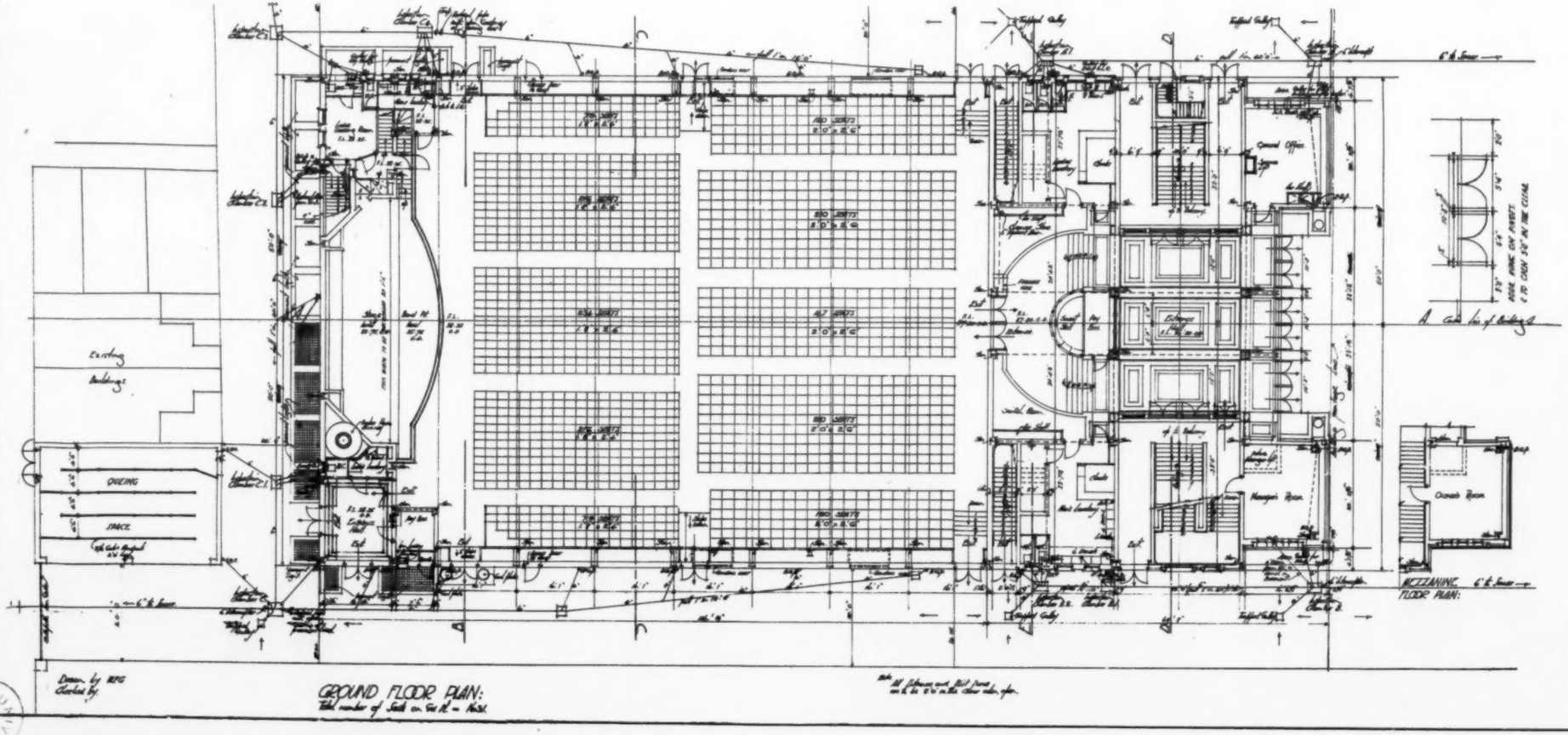
Total number of Seats in Upper balcony Floor = 417.





SECOND FLOOR PLAN of BACK PORTION:

BALCONY FLOOR PLAN;
Total number of Seats on Balcony Floor — 260.

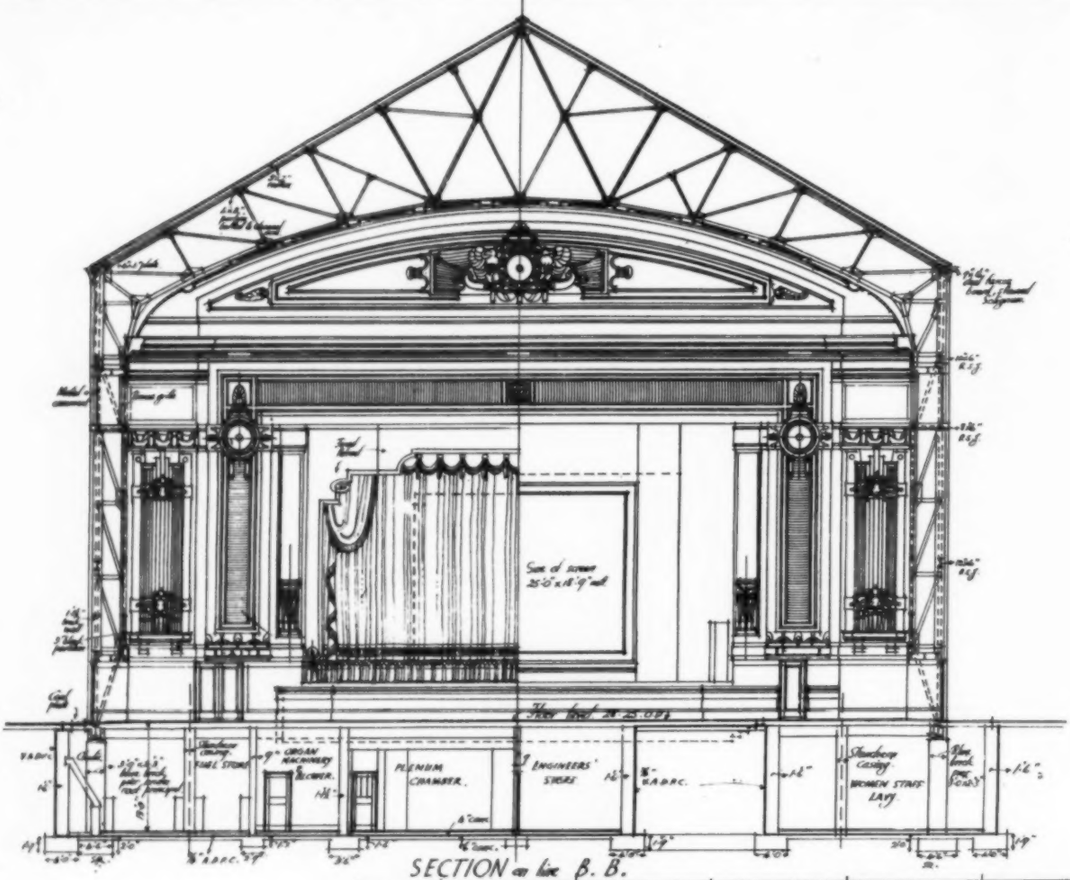


GROUND FLOOR PLAN:
Total number of Seats on Ground Floor — 1834.

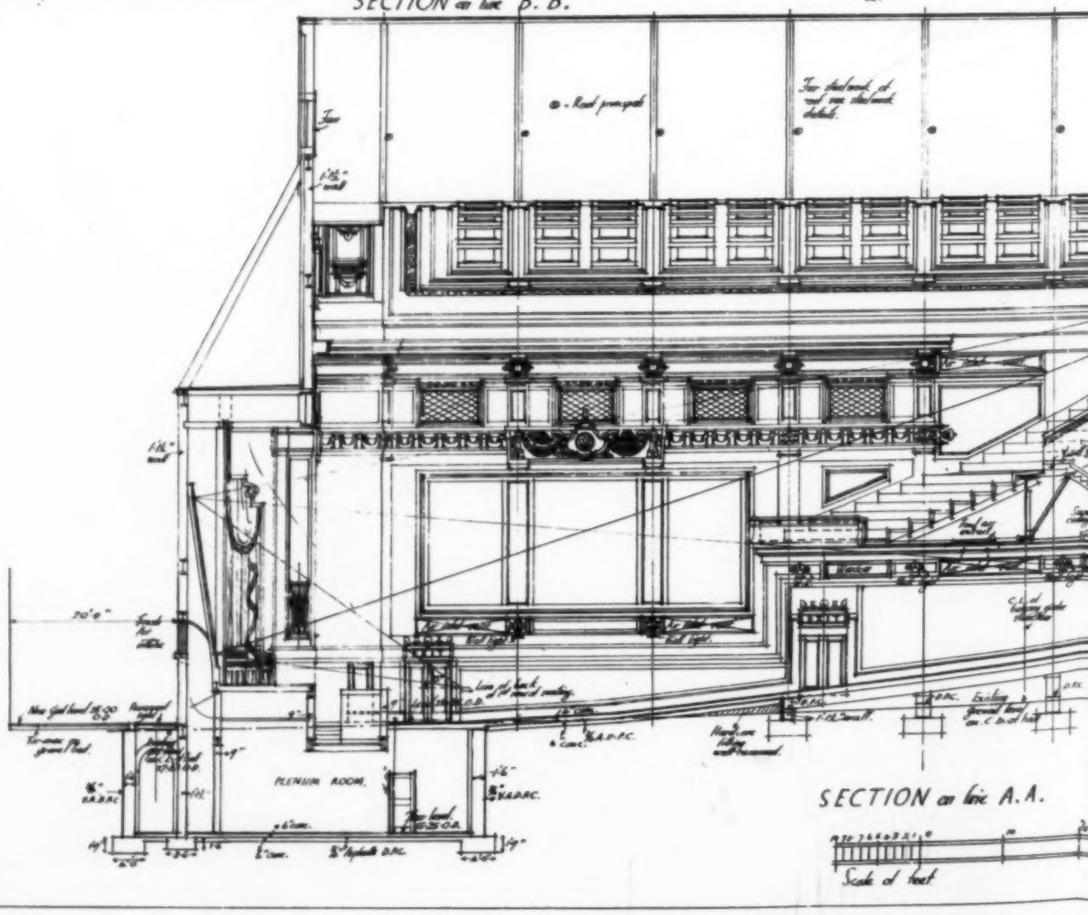
MEZZANINE FLOOR PLAN:

NEW CINEMA, KENSINGTON ROAD, LONDON, W. MESSRS. GRANGER & LEATHART, AA.R.I.B.A., ARCHITECTS.

NEW KINEMA for J. T. MEARS, ESQ., on KENSINGTON ROAD, LONDON, W.



SECTION on line B. B.

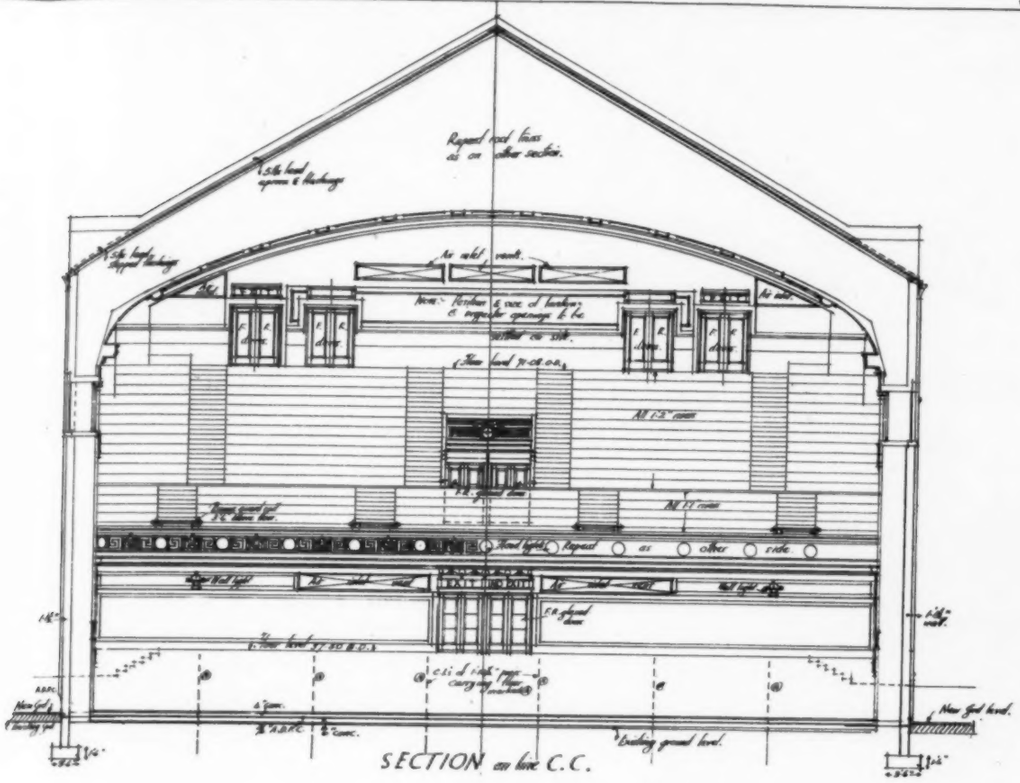


SECTION on line A. A.

Scale of feet

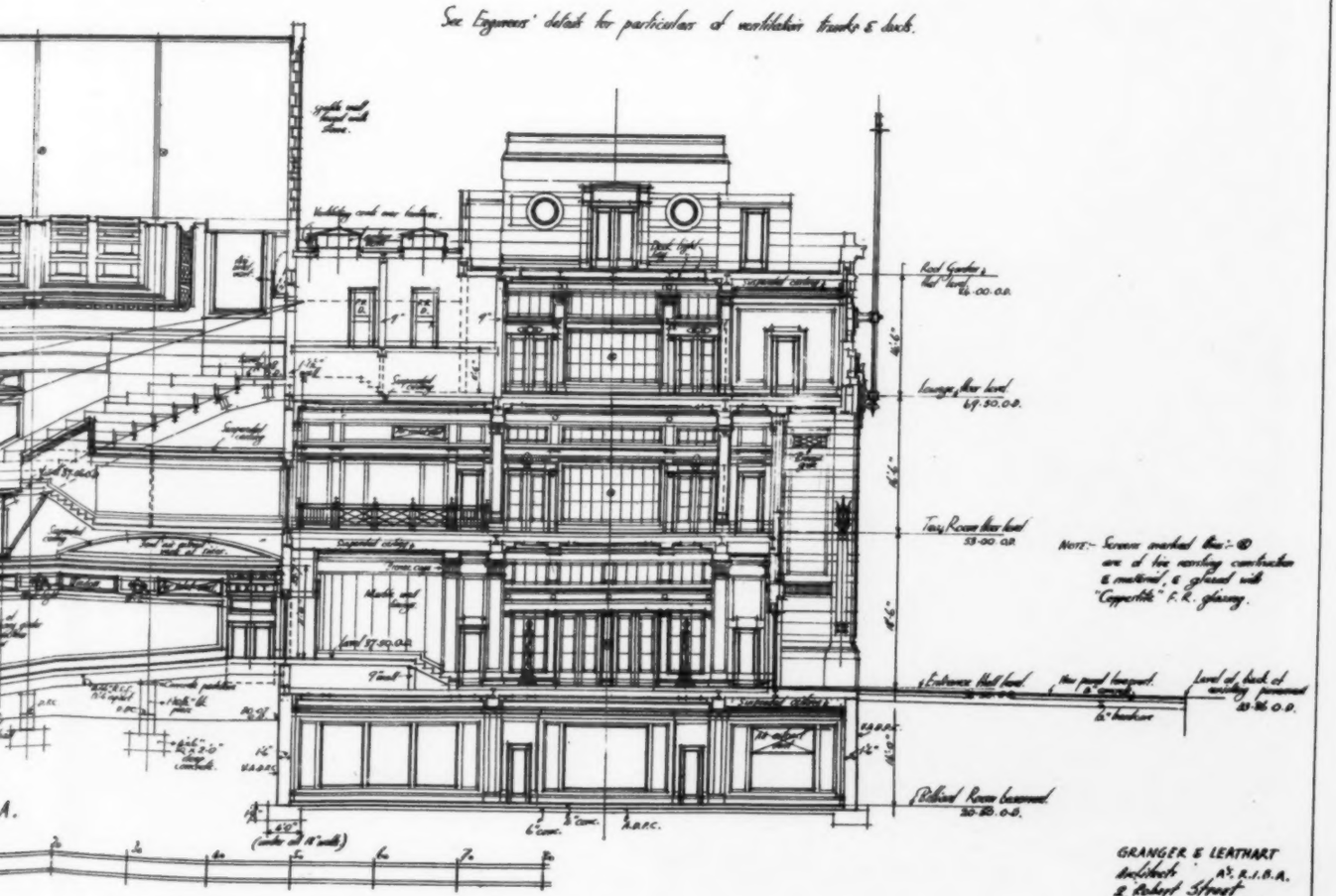
Drawn by J.R.L.
Checked by

Drawing N° 8.


Repeat roof lines as on other section.
As adj. room.
Repeat as other side.
All 12" risers
Repeat as other side.
Existing ground level.
New finished ground level.

SECTION on line C.C.

See Engineers' details for particulars of ventilation trunks & ducts.


Roof Garden & Roof Terrace 69.00.0.D.
Lounge Floor Level 69.50.0.D.
Tea Room Floor Level 53.00.0.D.
Entrance Hall Level
New paved Pavement
Level of back of existing pavement 29.76.0.D.
Public Room basement 30.20.0.D.

NOTE:- Screens marked thus:- ⊗ are of Ivy covering construction & constructed of glazed with "Copperlite" F.R. glazing.

GRANGER & LEATHART
Architects
A.A. R.I.B.A.
2 Robert Street
Adelphi.
W.C.2.

W. MESSRS. GRANGER & LEATHART, AA.R.I.B.A., ARCHITECTS.

UNIV. OF MICH.

UNIV. OF MICH.

The Kensington Cinema, Kensington Road, W.: View from Balcony.

MESSRS. W. F. GRANGER & J. R. LEATHART, AA R.I.B.A., Architects.

PROSCENIUM OPENING.

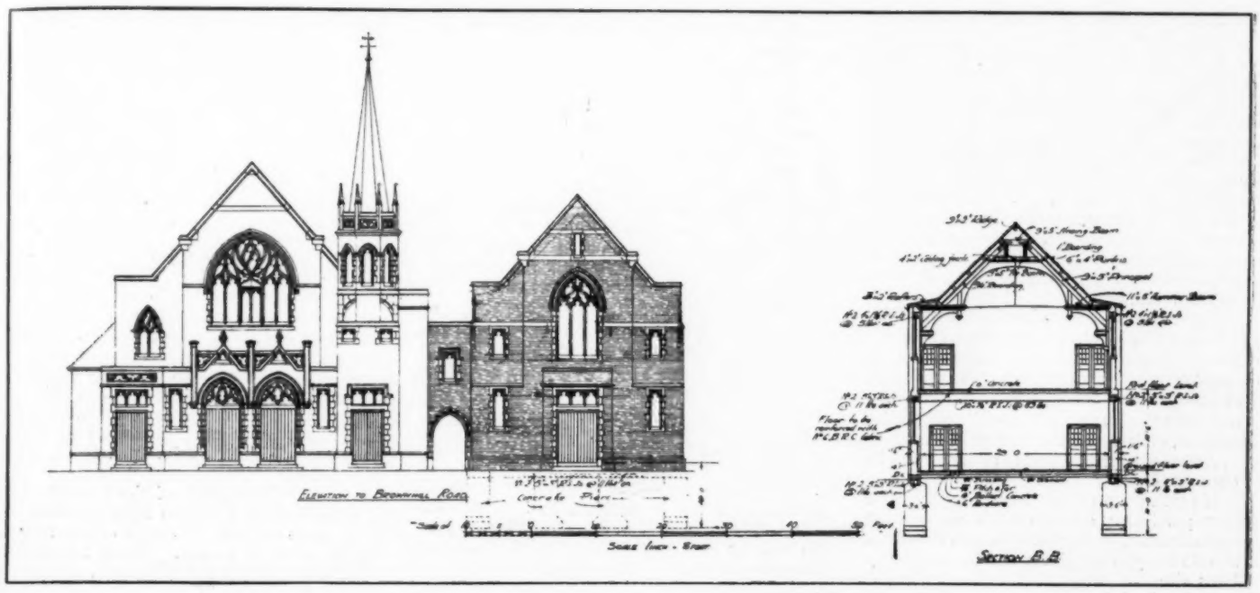
PRINCIPAL STAIRCASE.

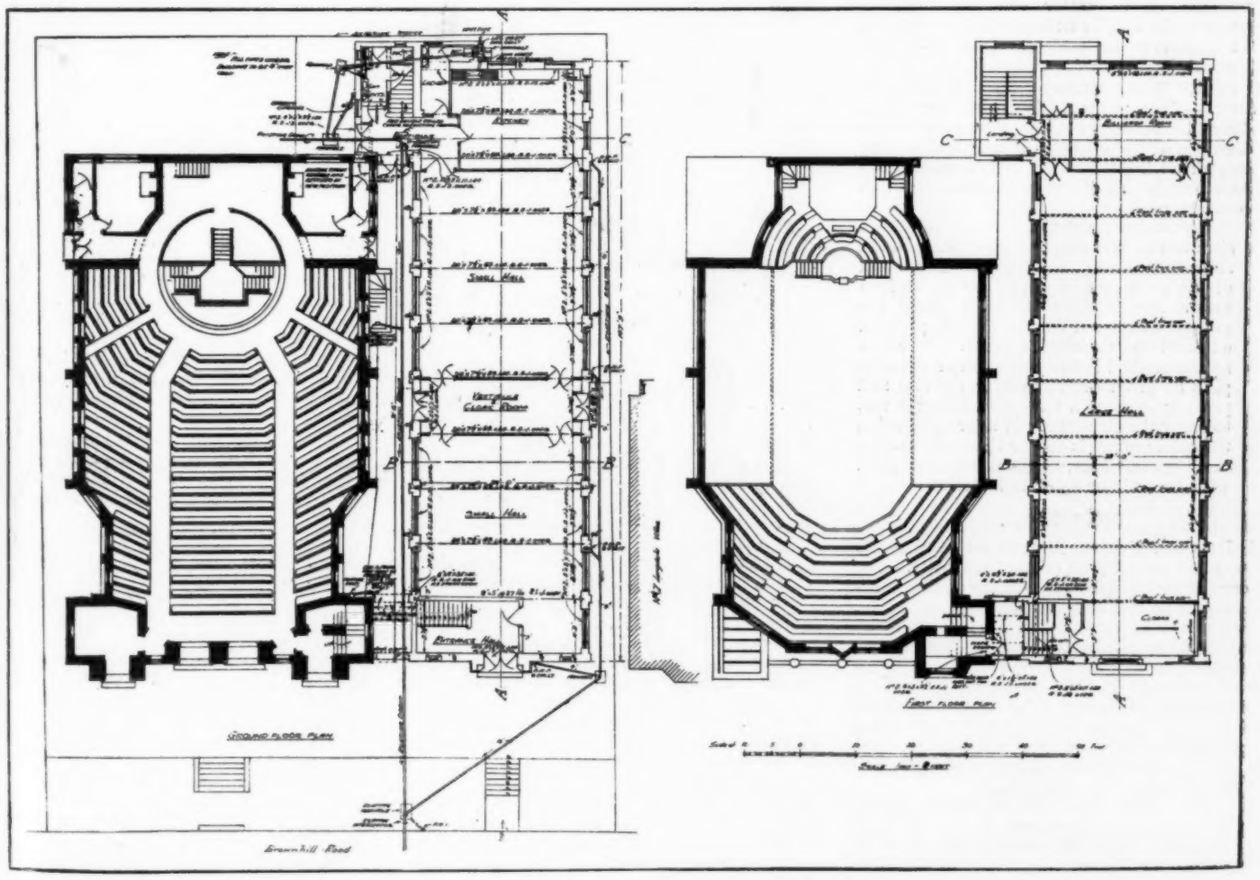
The Kensington Cinema, Kensington Road, W.

MESSRS. W. F. GRANGER & J. R. LEATHART, A.A.R.I.B.A., Architects.

MESSRS. GERALD WELLESLEY & TRENWITH WILLS, A.R.I.B.A., Architects.

[Lower Waldridge Manor is a small house of early seventeenth century date. The illustration shows the new wing built for the Hon. Mrs. Beckett, containing two bedrooms, bathroom, and the re-arrangement of the kitchen, servants' hall, and offices. The facings are carried out with a mixture of 2 in. bricks from Messrs. Collier, of Reading, and local Amersham bricks. The steel casements were supplied by Messrs. James. The general contractors were Messrs. Mayne & Sons, Aylesbury.





Brownhill-road Baptist Church, Catford: Proposed War Memorial Sunday School and Institute Buildings.

MESSRS. SMEE & HOUCHIN, Architects.

SPECIFICATIONS—II

By H. V. MILNES EMERSON, A.R.I.B.A.

EXCAVATOR.

27. SURPLUS EARTH.—All surplus earth or materials arising from the excavations, unless otherwise specified, to be carted away when directed.

28. FILL IN AND RAM.—Fill in and ram to all footings, drain pipes, &c.

30.—DIGGING.—Take up turf and vegetable soil from the site of building and pathways, level same as required, deposit or spread same as directed not exceeding .....yards run.

Note.—If the turf is suitable it should be reserved for future use. The vegetable soil should be removed for garden purposes and also because it is unsuitable under the floor of the building.

31. FOUNDATIONS.—Excavate for all foundations to walls, piers, &c., to the widths and depths shown, or as directed by the architect, and spread where necessary to make up levels, well rammed and consolidated.

32. BASEMENT, CELLARS, &C.—Excavate for basement, cellar, &c., to the depths shown.

Notes.—Describe parts of site to be excavated.

If earth from excavations is required for any particular purpose such as forming embankment, filling up holes, &c., this work should be specified giving the distance away from site.

If the site is in a confined area, it may be necessary to carry the material to the carts in baskets.

33. DRAINS.—Excavate for all drains, inspection chambers, soakaways, cesspool, water and other pipes. Water pipes to be not less than 2 ft. below the surface of the ground.

Note.—Some water companies require water pipes to be at a greater depth than 2 ft. below the surface. This should be ascertained from the company concerned.

34. PEAT, WATERLOGGED AND QUICKSAND SITES.—Close or sheet pile to the sides of the site and excavate to the depths shown on the drawings or/ to a depth not exceeding....ft., and fill up the void with well-rammed hard-core to underside of concrete floor, or/ cement concrete, as shown.

Note.—Peat, waterlogged and quicksand sites will require sheet or close piling to the sides driven into firm ground. The depth of the solid ground should be ascertained before the contract is made. After the piling is completed the water can be pumped out and the excavation made. An alternative method is to drive wood or concrete piles at given distances over the site and place upon same a reinforced concrete raft to carry the structure. If after excavation the solid ground is deeper than required for the basement floor, the void should be filled with concrete or suitable material.

CONCRETOR.

35. BALLAST, BROKEN BRICKS OR STONE.—To be free from all dust or foreign matter. For concrete to foundations, surface of site, basement or ground floors to pass through a 2 in. ring. For upper concrete floors to be made up of different sizes, the largest to pass a ¾ in. ring.

36. CLINKER OR BREEZE.—To be free from dust, coal or foreign matter, and not to contain more than two per cent. of sulphur. To pass through a ¼ in. ring.

37. SAND.—To be clean, sharp, coarse grit, free from all impurities and salt.

Note.—The materials forming the aggregate for concrete should be as clean as possible. Dirty material is injurious to the cement and results in poor concrete. The presence of salt in ballast or sand attracts moisture, and if dryness is essential, such materials should not be used.

38. PORTLAND CEMENT.—To be medium setting, conforming to the existing "British Standard Specification" for Portland Cement and to comply with the tests for same. To be gauged by measure.

Note.—The British Engineering Standards Association is an independent body of engineers formed for the purpose of drawing up British Standard Specifications for materials, machinery, &c., for the engineering and allied industries. In the British Standard Specification for Portland Cement the composition, manufacture and tests are detailed, and the bulk of cement used in this country now complies to these requirements.

39. MIXING.—All gauging and mixing to be done on a boarded platform and materials to be measured in boxes, all turned over twice dry and twice when wetted, deposited immediately, well rammed and levelled. When work is resumed or before floating is laid surfaces to be cleaned and wetted.

40. CONCRETE.—In foundations, to be composed of one part of Portland cement, three of sand, and six parts of broken bricks, stone or ballast, well rammed and levelled to receive brickwork.

Note.—If sandy ballast is used the proportions could be one part of cement to eight parts of ballast.

41. CONCRETE RAFT.—The site to have a raft of concrete as before specified, 6 in. thick, and 12 in. thick under all walls. The 12 in. depth to be 6 ft. wide under walls and reinforced 3 in. from bottom with reinforcing fabric.

42. HARDCORE.—Clean broken bricks or stone to be laid under surface concrete or concrete floors, yard paving, &c., average 4 in. thick and well rammed.

43. BASEMENT FLOOR, OR GROUND FLOOR.—Where of tiles, wood block, jointless or other flooring, to have 4 in. of cement concrete as specified for foundations.

Coal store, scullery, &c., to have similar concrete finished with cement and sand (1 to 1), coloured with a colouring preparation and trowelled smooth.

44. SURFACE CONCRETE.—Lay over whole surface of buildings a 4 in. bed of cement concrete composed of one part of cement to seven parts aggregate levelled and spade finished.

Notes.—If lime concrete is used the lime should be of medium hydraulicity, freshly burnt, mixed in proportions of one part lime to five parts of aggregate. There should be sufficient sand to fill the interstices.

In some districts the authorities do not require surface concrete under the building.

45. UPPER FLOORS AND FLATS.—To be of concrete composed of one part of cement, two parts of sand, and four parts of broken bricks, or . . . to be 6 in. thick where not otherwise shown, deposited on centering and well rammed.

The floors and flats finished with wood blocks, asphalt, &c., to be floated with cement and sand (1 to 3) average ¾ in. thick. To be laid to true surfaces and gradients.

Note.—The concrete to upper floors should be composed of an aggregate that will resist the action of fire. Broken brick or breeze are the materials now generally used for this work. Care must be taken that breeze or clinker is free from injurious materials, otherwise there is a tendency for the concrete to expand. Reinforcement can be of rods, expanded metal, or dovetailed sheeting. This latter material acts as a reinforcement and dispenses with centering.

46. BOARDED FLOORS ON CONCRETE.—Lay over all ground-floor rooms which are to be boarded a coat of hot pitch and tar and 2 in. of fine breeze concrete (1 to 5) laid between battens and finished level with same to receive floor boards.

Note.—This type of floor has been used largely in housing schemes. The damp course, which can be of mastic or one of the cement waterproofing compositions on the market, should be kept at least 2 in. below the underside of the flooring in order to prevent the floor brads piercing same. Breeze filling alone will not give secure nail hold, and the insertion of creosoted splayed battens every 3ft. or 4 ft. apart is advisable to prevent the floor boards becoming loose. The concrete should be dry before the floor boards are laid.

47. UPPER FLOOR HEARTHS.—To be formed with concrete as for upper floors, filled in on centering supported by 2 in. × 1½ in. deal fillets nailed to trimmers.

48. EXTERNAL STEPS.—To be of concrete composed of one part of cement to seven parts of aggregate finished with granite chips and cement (1 to 1) to treads, risers and ends. The top step to finish 1½ in. above floor level.

Note.—This allows space for the door mat.

49. CILLS.—To be of similar concrete and finish as specified for the steps, and to be as detail on Drawing No. . . .

50. CONCRETE LINTOLS.—To be cast *in situ* or in moulds as convenient and composed of one part cement, four of clinker, or breeze (to pass 1 in. ring), and two of sand reinforced with ⅜ in. steel rods to openings under 3 ft, 3 in. wide, one for every 4½ in. of thickness, and to be of the dimensions shown with 6 in. bearing at each end. All lintols over openings exceeding 3 ft. 3 in. span to have ⅝ in. steel rods.

Note.—The depth of the concrete lintol should not be less than 1½ in. for every foot of span, and the thickness of the wall less any external arches. When the surfaces of the wall are not plastered, the face of the lintol should be kept back ½ in to allow for a cement finish.

51. CONCRETE WALLING TO HOUSES.—The ie ternal wall above damp course to be 4 n thick, composed of one part of cement to six parts of aggregate. The aggregate is to contain a small portion of clinker, the amount to be approved by the architect. The inner wall to be 4 in. thick, composed of one part of cement, two parts sand and four parts clinker. The cavity between the walls to be 2 in. wide. The walls to be reinforced as shown on drawings with steel rods..... diameter. In all cases where rods come over window and door openings, they are to be in one length and to extend 2 ft. on either side of opening. The rods generally to be in long lengths and lapped at joints at least 6 in., and all ends to be turned up.

The party wall to be clinker concrete.... thick, the inside bearing walls 4 in. thick, and other partition walls 3 in. thick, all in cement concrete. The chimney breasts, &c., to be as shown on drawings built in cement concrete with glazed stoneware flue pipes.

Build in as the work proceeds 9 in. × 4 in. × 3 in. breeze fixing blocks in all concrete walls, excepting those built of breeze, for fixing joinery, &c.

All walls carrying floor joists to have 2 in. × ⅛ in. hoop iron wall plates.

The cavity at jambs of window and door openings to be stopped with breeze concrete; or

The cavity at jambs of window and door openings to be covered with expanded metal lathing to receive plaster.

The cavity walls to have approved galvanised iron wall ties not less than one to every 3 ft. super.

52. CONCRETE STAIRS.—Construct staircases of fine cement concrete (1 to 5), landings and spandril steps cast in moulds with ½ in. granolithic finished fair on all exposed surfaces, arrises to be slightly rounded, the steps to have square stools 4½ in. in walls, all set and jointed in cement. Bottom steps to be solid. Landings to be 7 in. thick, finished in granolithic and reinforced as shown on drawing.

All spandril steps to have one length of ½ in. steel rod or bar embedded as reinforcement. Form all necessary mortices for dowels, bolts, sockets, balusters, &c., and run with cement to balusters.

53. FLOOR OVER PASSAGE.—Where carrying party wall to have 6 in. cement concrete, composed of one part cement to four parts aggregate (to pass ¾ in. ring) and two parts

sand, reinforced with ¾ in. steel rods 12 in. apart; or

Where carrying party walls to have 6 in. cement concrete as before specified on Lewis steel sheeting....gauge.

54. GARDEN PATHS AND FENCES.—To consist of 2 in. layer of broken brick or clinker, finished with 2 in. layer of gravel or hoggin, well rolled and consolidated. Paths generally to be.....wide.

The divisions between back gardens to be formed with cement concrete posts, 4 ft. × 3 in. × 3 in., holed for three strands of galvanised wire.....gauge, posts to be slightly tapered and to have pyramidal tops. Posts to be let 12 in. into ground and to be surrounded with cement concrete 12 in. × 12 in. × 6 in. thick. The posts for gates to be similar, but to be lead plugged to take hinges. Each to be well rammed.

Note.—It will be found more convenient in many instances to specify an item complete instead of dividing it between the trades concerned. Cases in point will be found in item 51, where the hoop-iron wall-plates are included, and in item 54 where the galvanised fencing wire is specified. The hoop-iron and wire can also be specified under "SMITH," but these items, being complete, will tend to eliminate mistakes and simplify carrying out the work by the foreman and others.

MEETINGS

FRIDAY, *January* 15.

London Society.—Miss L. G. Crum on "The Banks of the London River." At 18, John-street, Adelphi, W.C.2. 4.30 p.m.

MONDAY, *January* 18.

Royal Institute of British Architects.—Award of prizes and studentships for the year, followed by a criticism of the work of the students by Mr. H. S. Goodhart-Rendel, F.R.I.B.A. 8 p.m.

Royal Society of Arts.—Mr. H. P. Shapland on "The Decoration of Furniture." At 18, John-street, Adelphi, W.C.2. 8 p.m.

Surveyor's Institution.—Mr. D. Warder on "The Development of Industrial Villages," and Mr. F. W. Kuphal on "Garden Cities and their Development." 6 p.m.

Royal Sanitary Institute.—Mr. C. Porter on "Duties of a Sanitary Inspector." At 90, Buckingham Palace-road, S.W.1. 6 p.m.

TUESDAY, *January* 19.

Electrical Contractors' Association.—Annual Dinner. At Trocadero, Piccadilly Circus, W.1. 7 p.m.

Royal Institute of British Architects.—An exhibition of students' prize drawings. At 9, Conduit-street, W.1.

WEDNESDAY, *January* 20.

Royal Society of Arts.—Mr. H. Houlston Morgan on "Problems in Paint and Varnish Technology." At 18, John-street, Adelphi, W.C.2. 8 p.m.

Surveyors' Institution.—Mr. L. W. Everett on "Agency." At Weston-super-Mare. 6.30 p.m.

Institution of Structural Engineers.—Major R. A. B. Smith on "Concrete Roads in America: and the Application of their Principles of Design and Construction to Great Britain." At 296, Vauxhall Bridge-road, S.W.1. 8 p.m.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Dutch and Belgian Renaissance." 6 p.m.

THURSDAY, *January* 21.

Society of Antiquaries.—Mr. P. G. Laver on "Excavation of a Tumulus at Lexden, near Colchester." 8.30 p.m.

Surveyors' Institution.—"Mock Arbitration." At the Queen's Hotel, Birmingham. 6 p.m.

January 18, 19, and 21.

Institution of Electrical Engineers.—Mr. A. P. Trotter on "Illumination and Light." At the University, Liverpool; 17, Albert-square, Manchester; and Trinity College, Dublin, respectively.

LIABILITY UNDER REPAIRING LEASES

CAPTAIN W. T. CRESWELL, Barrister-at-Law, Associate (late Fellow) of the Surveyors' Institution, in the course of a special lecture, at the College of Estate Management, 35, Lincoln's Inn-fields, W.C. 2, on this subject, confined his remarks to the liabilities by lessees, but mentioned that where there is no stipulation in a lease or an implied obligation imposed by statute, no obligation rested upon the lessor to put premises in a habitable condition, either at the commencement of the tenancy, or during its continuance. Further, the lessor could let a tumble-down house if it did not come within a statute, or was let furnished; the lessor was not liable in like circumstances for accidents occurring during the term of the letting, to the tenant's customers or guests, or, in certain other circumstances, to members of the tenant's family or employees. The cases of Robbins *v* Jones (1863), 33 L.J.C.I, 1, 5, and Cavalier *v.* Pope (1905), 2 K.B. 757, were referred to in this connection. Dealing with the lessees' liabilities, the lecturer dwelt on the words "fair" or "reasonable," "wear and tear," and pointed out that, in the light of recent cases, these words were implied, whether present or not in the covenant. Every word of the covenant should, however, be considered, and given its full meaning, and the conditions of the premises at the commencement of the lease must be taken into account. A tenant is not under any obligation to yield up at the end of the term a different thing from that which he took at the commencement. He must keep the premises in as near as possible the same condition as when they were demised, replacing every part worn out. He must maintain them in a habitable state, *i.e.*, in "habitable repair."

The chief difference between Lister *v.* Lane (1893), 2 R.B. 212, and Lurcott *v.* Wakeley (1911) 1 K.B. 905, were dwelt upon. Lister *v.* Lane decided that the lessee was not liable to rebuild a house which, through its age and its construction, was past repair; whereas Lurcott *v.* Wakeley determined that the age and nature of the structure did not relieve the lessee from the duty of complying with the covenant to repair—except if repair was impossible—that in any case, the lessee was bound to replace a subsidiary portion of the premises if necessary.

Various forms of covenants were considered, though it was shown that in the case of Calthorpe *v.* McOscar (1924), 1 K.B. 716, it was stated that whatever the terms of the covenants were, they had much the same meaning if the parties intended that the premises were to be repaired, kept in repair, and yielded up in repair at the end of the term.

The cases of Crawford *v.* Newton (1886), 36 W.R. 54, and Proudfoot *v.* Hart (1890), L.R. 25, Q.B.D. 42, were considered more particularly in connection with the findings of Lurcott *v.* Wakeley (Supra) and Calthorpe *v.* McOscar (Supra). The last-named case established that repair means making good damage so as to leave the subject matter as far as possible as though it had not been damaged.

In Lister *v.* Lane (Supra), the tenant could have underpinned the dwelling house that had been pulled down owing to its dangerous condition, but the Court said underpinning is not repairing, and the tenant was not liable to rebuild the whole ho se.

Particular points brought out in the cases of Wright *v.* Lawson (1903), 19 T.L.R. 203, Rose *v.* Hyman (1911), 2 K.B. 234, and others, were indicated; also the nature of the repairs necessary, and those which should satisfy the lessor's surveyor when one is employed. A lessee, unless he had so contracted, was not liable for loss caused by inevitable accident, as when the house was destroyed by fire or tempest; but, if he had so contracted, or was to insure, he might be liable to rebuild under the covenant to repair.

The measure of damages in respect of breach of a covenant to repair where the action was brought (1) during the term and (2) after the term of the demise, was given, though mention was made of the fact that the Court would take into consideration the actual damage sustained by the lessor owing to the breach.

THE LATE WILLIAM J. FALKNER

BY W. A. PITE.

The Builder recorded recently the sudden and unexpected death, at the age of 59, of Mr. W. J. Falkner, the well-known quantity surveyor, which took place on New Year's Day. Mr. Falkner had been in poor health for some time, but had made, outwardly, considerable progress in recovery; he had not given up business.

He was the eldest son of the late Mr. J. W. Falkner, and brother of Mr. Alfred B. Falkner, the new President of the Master Builders' Association, and the head of J. W. Falkner & Sons, contractors.

I have been most happily associated with Mr. Falkner through this long period, and his passing creates a very real gap in professional life and experience.

During these years his unfailing and faithful services, his sound judgment, helpful counsel, and practical guidance, have at all times been to me, and to my partners, of the greatest possible assistance and an assurance of confidence most gratefully appreciated, while a binding bond of friendship has been maintained. There are others who can add similar testimony, but better and more fitting than any I can render.

By nature quiet and retiring, by convictions firm and determined, possessed of a keen sense of friendship and good-humour, slow to take offence, possessed of a keen sense of rectitude in settlements, and, above all, of a lovable disposition, all these and others were qualities not worn upon the sleeve, but such as could be seen and read of all men.

Mr. Falkner had been for many years surveyor to the Union Insurance, and had acted not only for me and for my partners, but, among other friends, for Messrs. W. H. Seth-Smith, Beresford Pite, Austen Durst, E. Brantwood Maufe, Ernest Bullock, Leslie Moore, the late E. S. Coldwell, etc. The funeral took place last Wednesday in the beautiful cemetery at Ocklynge, Eastbourne.

I regret to learn that Mr. Falkner's death has been followed by that of his assistant, Mr. John Richards, who for many years was assistant to Henry Jarvis & Son, architects, and for the past fifteen years to Mr. Falkner.

THE RENAISSANCE OF ART IN GERMANY

IN his first lecture of the new term at the Central School of Arts and Crafts, Sir Banister Fletcher, V.-P.R.I.B.A., gave a summary of the architecture of the Renaissance in Germany from A.D. 1500 to the end of the last century. He described the introduction from France into that country of the new Classical ideas, which, he said, were absorbed by degrees and incorporated into the Teutonic ideas of building which survived from the Gothic period. The Reformation of the Church took place at about the same time, Luther and others leading the way, and other changes in the methods of civilisation, such as the introduction of printing and gunpowder, and all combined to bring about marked changes in national life, buildings following the general tendency to classic revivalism, intermixed with the Gothic features already familiar in Germany. Sir Banister described Heidelberg Castle and other monuments by the aid of interesting lantern slides.

Liverpool Housing Schemes.

It is anticipated that by the end of this year the number of post-war houses built in Liverpool will reach 20,000, most of them belonging to the Corporation. The Housing Committee propose to inquire into the suitability of the Norwegian system of wooden houses; the Committee is also asking for quotations for 500 Atholl steel houses. Six experimental "Universal" houses are also to be erected.

REINFORCED CONCRETE IN BUILDING CONSTRUCTION

II.—MONOLITHIC CONSTRUCTION.

UNDER the head of monolithic construction may be considered buildings embodying a complete skeleton of reinforced concrete designed suitably for enclosure by curtain walls of other material, and buildings where both the skeleton and the enclosing walls are of reinforced concrete.

Described in simple terms, a reinforced concrete skeleton generally consists of wall and interior columns connected and braced by wall lintols and interior beams at each floor and at roof level, and completed by flooring systems, the concrete being monolithic throughout and the steel used as reinforcement passing from one structural element to another so as to form a complete network. The great lateral strength contributed by the various floors cannot well be tested by experiments on buildings, but has been strikingly demonstrated by analogous construction in river jetties when accidentally rammed by large steamships. Mishaps of this kind at Tilbury, Purfleet (Fig. 2), and Port Talbot were followed by surprisingly small amounts of damage in each case, a feature attributed by the responsible engineers to the bracing and shock-distributing action of the decking or flooring connecting with the columns above water level.

Where built on ground of adequate bearing power, the columns in a reinforced concrete skeleton rise from extended footings of sufficient area to distribute at a safe rate the loads due to the weights of the skeleton, the enclosing walls and the contents of the building. In the case of doubtful or unstable soil, the columns are incorporated at the base with a reinforced concrete foundation raft extending over the entire site, and so keeping the unit load on the soil within safe limits. Further, in case of need the foundations may be supplemented by piles driven singly or in groups in accordance with local conditions.

Since the wall columns and beams in a reinforced concrete skeleton present plane surfaces, convenient and ample support is found for curtain walls, which can be readily bonded to the framework by means of ties embedded in the concrete. In cases where the enclosing walls are of the so-called self-sustaining type, they can, of course, be effectively bonded in a similar manner. The inter-connection of masonry and a steel skeleton is by no means so easy, and can only be satisfactorily effected after encasing the steel construction in concrete, an operation naturally adding considerably to the initial cost. An example of reinforced concrete pillar and beam construction is shown in Fig. 1.

With regard to the relative sectional dimensions of reinforced concrete and steel members, in average practice steel stanchions, girders and joists measured over an adequate thickness of concrete or other protective material are approximately equal in sectional area to reinforced concrete columns and beams of equal bearing capacity, and, in cases where brickwork is adopted as a casing, steel members may take up more space than their equivalents in reinforced concrete. In favour of the latter material, it may be pointed out that the shape of wall columns can often be such that a good deal of the section can be incorporated in the walls, leaving the remainder to project in the form of pilasters. Similarly, it is quite practicable to incorporate in exterior or interior walls any heavy or exceptionally deep beams which may be required for the support of upper stories over a large hall, or of any heavy superstructure such as a tower or dome. In ordinary practice there is no occasion for visible ceiling beams, as flat slab and other systems of floor construction obviate the need for projecting beams. If, however, the architect should desire panelled ceilings, the main and secondary beams ordinarily employed in reinforced concrete construction lend themselves readily to various effects.

The choice of material for the enclosing walls is obviously one for the architect and his client. From the purely structural point of view, it is certainly well to fill in the panels between exterior columns and beams with reinforced concrete, thus applying the principle of monolithicity to all parts of the structure, thereby securing maximum strength and rigidity, and saving space by reducing wall thickness to a minimum.

Owing to the monolithic connection between all the structural elements and to the incorporated network of steel, the various parts of a reinforced concrete skeleton, or of a complete building, are able to help each other effectively, if occasion should arise, in withstanding severe stresses due to unexpected loads and shocks far beyond the stresses contemplated by the designer. Moreover, the construction is capable of resisting without injury the effects of local subsidence of the soil, the fact being that a reinforced concrete building is capable of behaving as a single unit in case of need, much as a steel or a concrete ship is capable of riding on the seas. In illustration of these characteristics, we give a few representative examples illustrating the behaviour of reinforced concrete under various abnormal conditions.

EXCESSIVE LOADING.—An instance of inadvertent loading far beyond that contemplated by the designers was quoted some years ago by Sir Henry Tanner during the discussion of his paper dealing with the new General Post Office buildings. It was then stated that a floor between two of the buildings was inadvertently subjected to a load of 9 cwt. per square foot for some time without the slightest evidence of overstrain, although the calculated safe overload was only 2 cwt. per square foot. According to official theories and methods of calculation, the progressive application of this excess loading would have caused marked deflection, accompanied by serious cracks and followed by complete failure.

A similar instance occurred in a factory at North Shields, where one of the floors calculated for a superload of 1 cwt. per square foot was loaded up to 4 cwt. per square foot for a considerable period. This undue loading was discovered by the designers when taking particulars for an extension of the premises. Although careful examination showed the construction to be perfectly safe under this excessive loading, the owners were advised that it would be well to keep future loads within the original limit.

In another case, the owners of a factory building desired to make a wide opening through one of the end walls, and engaged a local contractor to carry out the work. Without consulting the designers this contractor cut away the reinforced concrete curtain wall and one of the main exterior

Fig. 1.—St. Peter's Church, Acton. MR. W. A. PITE, F.R.I.B.A., Architect.
(Showing the use of Reinforced Concrete Columns and Beams.)

columns without providing temporary supports for the construction. Thanks to the automatic readjustment of stresses by the monolithic construction of the building, no injury was caused. A parallel case within the knowledge of the writer occurred in a large warehouse where reinforced concrete floors were carried by brick walls. In order to make an additional doorway, a local builder knocked away part of one wall, leaving the end of a main floor beam entirely without support, the floor being at the time under a superload of 2 cwt. per square foot (Fig. 3). In this instance the tenacity of the construction enabled the secondary beams and floor slab, connecting the unsupported beams with other main beams, to transmit and distribute the excess loading to other parts of the construction without appreciable effect.

Among other instances, one of the most striking is that furnished several years ago by an accident at the front of a tramway depot at Le Mans, France, where the intermediate support of the main roof beam was virtually destroyed by a derailed tramcar, thereby suddenly converting two 21-ft. spans into a single span of 42 ft. No other damage resulted and the fractured column was replaced without difficulty.

SUBSIDENCE OF SUBSOIL.—Unequal settlement of the soil is one of the most fertile sources of damage to all buildings of ordinary construction, including those where a steel frame is enclosed by brick or stone walls. The sinking of footings supporting walls, piers and steel stanchions tends to cause the appearance of cracks in masonry and may lead to collapse in a case of considerable subsidence. On the other hand, an entirely monolithic reinforced concrete building, or one with a monolithic skeleton supporting the entire weight of the enclosing walls, cannot suffer injury from subsidence at isolated points, or even over a considerable proportion of the site. This valuable characteristic has been abundantly demonstrated by numerous examples, of which two or three are very briefly summarised below.

At Northwich, where startling subsidences due to brine pumping are the order of the day, a reinforced concrete co-operative stores building resting upon twenty piers was found in 1915 to have become deprived of support from ten of the piers. Examination proved that no harm had resulted, and the piers were made good without trouble and without interfering with the conduct of business. At Tunis, three granary and flour mill buildings were affected, some years ago, by the escape of quicksand from beneath the foundations, in each case along one side of the building. The buildings, one after the other, gradually assumed a leaning position, until the maximum inclination was 25 deg. from the vertical (Fig. 5). They were, however, set upright without showing any injury, each of them having proved capable of acting as a single unit.

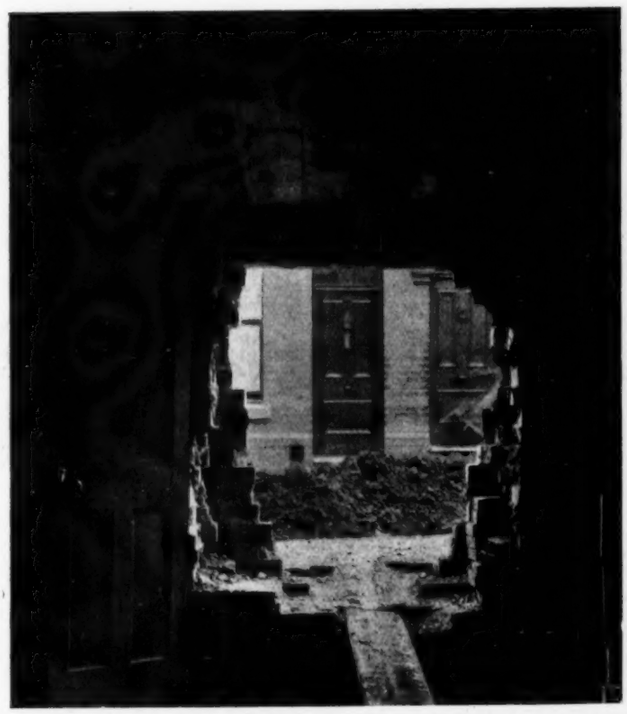


Fig. 3.—Hole made in Brick Wall: Showing End of Unsupported Reinforced Concrete Beam, and Demonstrating the Value of Monolithic Construction.

The levelling operations were effected by lowering the raised side, thus converting into basements what were previously the ground floors of the buildings. A more recent case of the same kind was that of a reinforced concrete granary building at Winnipeg, nearly 100 ft. high and holding some 125,000 quarters of grain (Figs. 6 and 7). Owing to subsidence of the soil, the building settled along one side until it was 28 deg. out of the vertical, and the top projected nearly 40 ft. beyond the base. This building was straightened by lowering the raised side down to new piers founded on solid rock and by raising the sunken side by means of jacks, the load being then transferred to new piers. The weight dealt with in these operations was over 20,000 tons, and the work was carried out quite successfully by Mr. J. G. Sullivan, chief engineer to the Canadian Pacific Railway, the owners of the building.

EARTHQUAKE AND OTHER SHOCKS.—Although this country is fortunately immune from earthquake shocks of serious character, the behaviour of reinforced concrete in numerous earthquakes abroad, and particularly in the recent Japanese earthquake, deserves consideration by those who wish to erect buildings of maximum strength at minimum cost. Shocks due to causes other than seismic disturbances are often experienced, chiefly in buildings where ordinary construction is embodied. To give one instance, we may refer to the fall of heavy machinery through several stories of timber flooring at Millennium Mills, Silvertown, during the progress of a fire resulting from the great munitions explosion of 1917. The reinforced concrete floor upon which the machinery fell was certainly damaged, as also were some of the outer wall columns, but the remarkable resistance of the construction was very fully manifested. The photograph reproduced as Fig. 8 shows two bridges formerly connecting the upper stories of two buildings at the Venesta Works, Silvertown. The explosion of 1917 caused one of the brick buildings to collapse entirely, bringing down the bridges but without doing them any very great harm.

Less violent in character but more frequently experienced in this day of underground

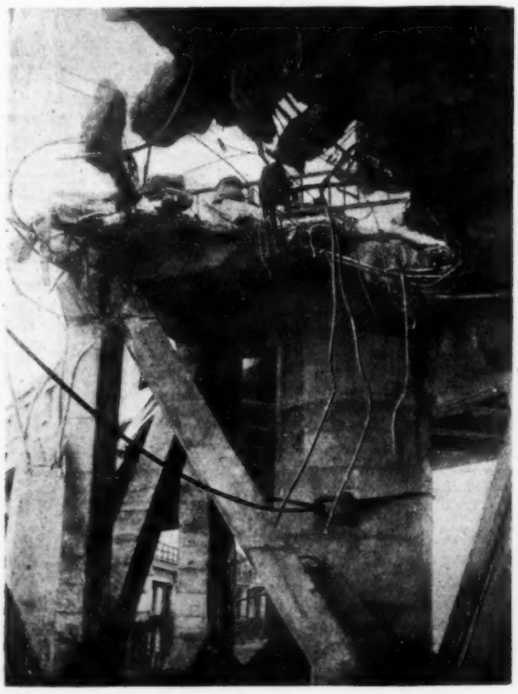


Fig. 2.—Gap caused by Collision of 8,000-ton Steamship with Reinforced Concrete Jetty at Purfleet: Showing Adhesion of Remainder of Structure.

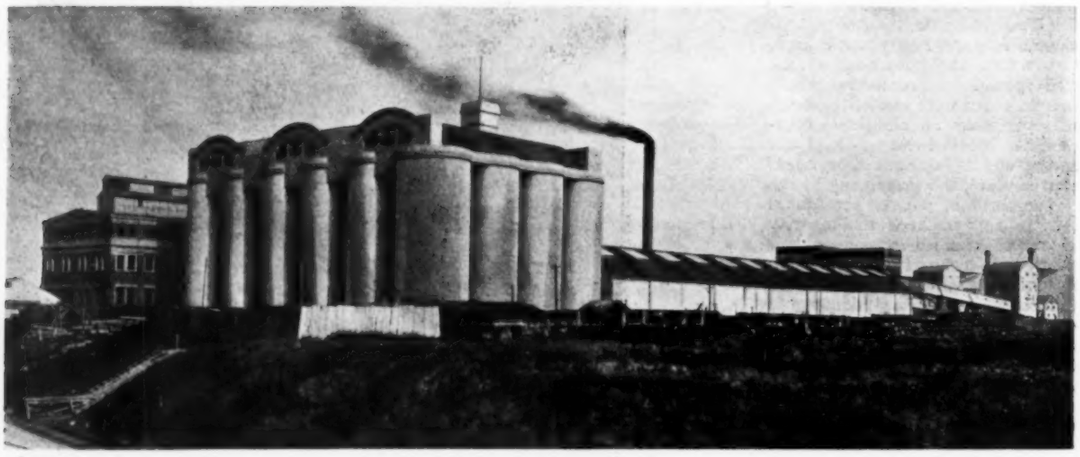


Fig. 4.—Reinforced Concrete Silos, Erith Oil Works.

railways, mechanically-propelled vehicles and heavy machinery in buildings, are the recurrent shocks producing vibrations which are always annoying to the occupants, and may be seriously detrimental to the structure of buildings. The resistance of monolithic concrete structures to vibration is particularly marked, and its effective character has been amply demonstrated by practical experience. In one of the first reinforced flour mills built in this country, that of Messrs. Weaver & Co., at Swansea, the complete absence of vibration is a striking feature, although grinding mills, representing a load of 3½ cwt. per square foot, are in constant operation on upper floors of the building. The avoidance of vibration in printing works is obviously a matter of much importance, particularly where three-colour work has to be done on upper floors. Reinforced concrete construction has proved especially valuable in this direction at the works of Messrs. J. Bibby & Son, Liverpool, and at the Ketterlinus Building, Philadelphia, where 15- and 20-ton presses are at work on the third, fourth and fifth floors with very little vibration. In silk and cotton mills, the avoidance of vibration is equally important, and on this point Mr. Leonard C. Wason has stated that American cotton manufacturers find that looms can be run 15 per cent. faster on reinforced concrete floors than on ordinary floors subject to vibration, and that a considerable saving of power is effected by the superior rigidity secured.

Again, Mr. J. P. H. Perry, M.Am.Soc.C.E., states that in one instance within his experience an annual saving of £1,000 has been effected by the adoption of reinforced concrete for a large industrial building, owing to the reduced cost of repairs and maintenance of machinery, largely in consequence of the absence of vibration.

The virtual elimination of vibration is but an additional manifestation of the rigidity, elastic strength, and stress-distributing properties characterising monolithic buildings. Some other useful characteristics of reinforced concrete may appropriately be mentioned in concluding the present article. Being heterogeneous in constitution, it is distinctly unfavourable to the transmission of sound waves, and in buildings where silence is specially desirable, hollow flooring with confined air spaces has been found very effective. At the same time, reinforced concrete has been found advantageous in the design of concert halls, organ chambers, and even in organ building, in consequence of the manner in which it

Fig. 5.—Effect of Subsidence on Reinforced Concrete Buildings at Tunis.

reflects sound waves, increases the sonority and quality of musical tone and generally improves the acoustical properties of buildings. The facilities afforded for the abundant admission of natural light in reinforced concrete buildings are often of great value.

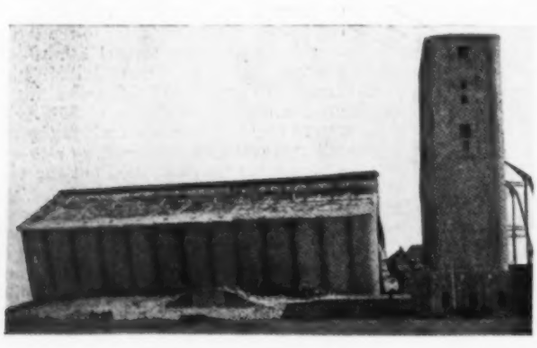
Advantage is sometimes taken of the impermeability of concrete by constructing roofs on which gardens can be laid out, and by forming roof tanks wherein water may be stored for fire-extinguishing and other purposes. The value of an impermeable material has also been shown by the construction of perfectly dry basements in damp soils. Thus, the Co-operative Wholesale Society's warehouse in Newcastle-on-Tyne has a basement surrounded by waterlogged soil, and yet can be used for so hygroscopic a substance as sugar; and at the new General Post Office the basement and sub-basement stories are used for the storage of documents, although the walls extend below subsoil water level.

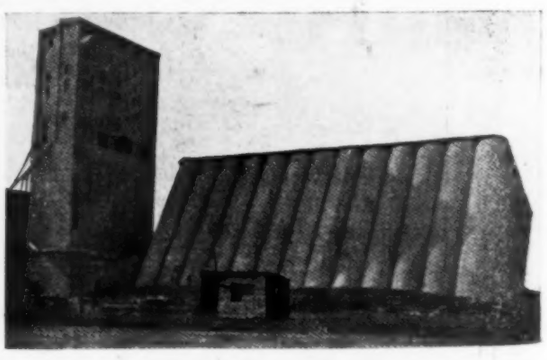
Again, the smooth, continuous surfaces of a monolithic building obviate the gaps, nooks and crannies which are found in ordinary buildings and serve to collect dust and dirt, as well as to provide places for the breeding of insects and vermin. With regard to the latter, it is well to remember that concrete cannot be gnawed away by rats and mice. Consequently, it can be applied so as to afford absolute protection to grain and food materials generally. In a monolithic building all walls, ceilings and floors are waterproof, and as sharp corners and re-entrant angles can be rounded off and filled, the cleansing of interior spaces is very easy, and in hospital wards such work may be conveniently performed by the aid of spraying apparatus, discharging either clean water or disinfectant solutions, as required.

Finally, the great elastic strength and rigidity of reinforced concrete facilitate the installation of machinery and mechanical equipment, reducing the cost of foundations and supports, and sometimes rendering unnecessary any special provision of the kind.

The silos for the Erith Oil Works, of which an illustration is given, were designed and constructed by Messrs. Christiani and Nielsen, of Westminster. The factory buildings illustrated on page 79 of our last issue were also designed and constructed by the same firm.

The lifts in these buildings were installed by Messrs. Marryat & Scott, Ltd., of London.





Figs. 6 and 7.—Reinforced Concrete Granary Building, Winnipeg. Views showing effect of subsidence.

Fig. 8.—The Silvertown Explosion, 1917: Showing how Reinforced Concrete Bridges remained intact after Collapse.

Fig. 9.—Reinforced Concrete Building at Newcastle after severe Fire: showing Monolithic Floor intact.

THE GREATER LONDON HOUSING CAMPAIGN

I.—Need of Housing Statistics for Greater London.

BY J. P. ORR.

1. FROM time to time statistics of progress in housing are published by the Ministry of Health. The figures, so far as they go, are most informing and, in many respects, very encouraging; but they throw little light on the real state of affairs as regards London's greatest need, viz., *the provision of new dwellings for weekly tenants with small means.*

2. The universal shortage of skilled labour is probably the chief cause of slow progress in provision of houses. This shortage causes not only slow progress, but high cost, and, therefore (if subsidies from the public purse are to be reasonably limited), high rents, far beyond the reach of those in most urgent need of early relief from bad housing conditions.

3. There are, however, other important factors contributing to high costs, viz., low output of daily work, high cost of land, and high cost of materials. So long as these factors persist, the doubling of the labour supply, though it may double the rate of progress, will effect hardly any reduction in cost and rent of houses, and therefore will not go far towards helping those most in need of relief.

4. If, by some miracle, we could not only double the supply of labour, but also get the workmen's output up and the cost of land and materials down to something like pre-war level, there would not be much difference between the pre-war and the post-war house as regards rate and cost of production; but even then the rent might still have to be fixed far above pre-war level, if we could not bring the cost of money down.

5. The obstacles to rapid production of houses for weekly tenants with small means are thus not only shortage of labour, but also low output of daily work, and high cost of land, labour, materials and money.

6. Now all these obstacles to rapid construction, to low cost of production, and to reduction of rent must, so far as houses intended for weekly tenants with small means are concerned, always be far more formidable and difficult to overcome in London than in most other places, by reason of the greater competition for land, labour, materials and money which the small-house branch of the building trade has to face there, viz., the competition of:—

(*a*) Great commercial building projects—both alteration and new construction.

(*b*) Houses built by owner-occupiers under the new stimulus of the Small Dwellings Acquisition Act, as amended by the Housing Act of 1925.

(*c*) Work on conversion of large houses into flats for the middle classes.

(*d*) Public works.

7. In view of these special obstacles to progress in London, it may be confidently predicted that, as regards provision of workmen's houses at moderate weekly rents, London will always be found lagging far behind the rest of the country. It is essential, therefore, for the proper appreciation of the real progress made towards solving the main housing problem in London, that the housing statistics periodically published for England and Wales as a whole should be supplemented by separate figures for the Greater London area.

8. In London, again, differentiation between the activities of local authorities and those of private enterprise is a matter of importance; for at present the latter benefit not the poorer weekly tenant, but the man who can afford to pay a high rent or buy his own house. There is a theory that whenever anyone, however well-to-do, takes a new house, he sets free a lower-rented dwelling, which becomes available for a poorer person, so that the completion of each new house affords a chain of relief to a series of sufferers from bad housing right down to the poorest; but this convenient theory is not at present working in practice, because landlords are free to put up the rents of vacated dwellings as much as they please. When the general supply of new houses has increased sufficiently to bring the fear of vacancies upon landlords and so deter them from raising rents, the poorer sufferers from bad housing will begin to get newly-vacated dwellings at moderate rents; but in London that good time is not yet in sight; so the weekly tenant of small means can expect nothing of private enterprise, but must depend entirely on local authorities for relief from bad housing conditions.

9. In present circumstances, then, a correct judgment as to the progress made towards solution of the London housing problem can best be based not on the number of houses built by private enterprise or by public utility societies, but on the number built by local authorities. Further, a housing scheme depends for its effectiveness not solely on the number of houses completed. It would be largely ineffective, if the houses were not suitably located with reference to the workplaces of those who needed them, or if the rents were more than these people could afford.

10. We shall, accordingly, in a second article, examine the latest available figures of housing progress, pick out those which refer to local authorities' housing schemes, compare London figures with those for the whole country, and explore the situation with regard not only to number, but also to location and rents of completed houses.

THE "BUILDER" COMPETITION.

PROBLEM No. 2.

In last week's issue we gave particulars of the first of a series of constructional competitions for those engaged in the pursuit of architecture and building. The second problem is now given. The competition is limited to students of any recognised school of architecture or building, assistants who have not passed the Final of the R.I.B.A., and builders and others engaged in the building industry not over 25 years of age. Practising architects, builders and others, and senior assistants will not be eligible. Solutions employing new materials and construction will be encouraged, and it is hoped that this new feature will prove popular and helpful to our younger readers.

Answers should be clear and concise and illustrated with detailed sketches or drawings where necessary. These solutions will be carefully examined, and that judged the best for the week will receive a prize of £1. Selected replies, together with a report, will be published in subsequent issues, and in the absence of a suitable solution, a model answer will be published. Any solution published, apart from that of the winner, will be paid for at our usual rates.

This week's problem is as follows:—

It is proposed to connect the lower basement floor of the new warehouse with the lower basement floor of the warehouse on the opposite side of the 30 ft. roadway by a subway. The basement floor of the new warehouse is 16 ft., and the basement floor of the old warehouse is 18 ft., below the roadway. The subway is to have 7 ft. 6 in. headroom and be 6 ft. 6 in. wide at floor level.

Describe how you would construct same, the materials used, and the method of lighting, both natural and artificial, and illustrate your answer with plans and sections drawn to a scale of 4 ft. to 1 in., and details to a scale of 1½ in. to the foot.

Answers, addressed to the Editor, and marked "Problem 2," to be sent in not later than first post, January 25.

The Editor's decision to be final.

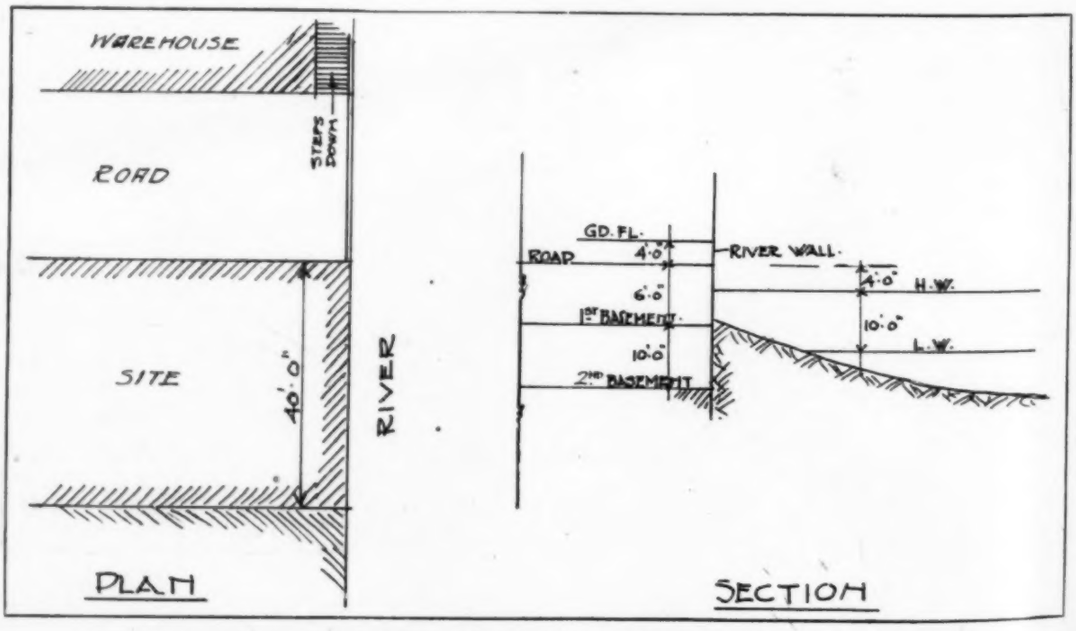


Diagram Illustrating "The Builder" (Constructional Problem) Competition.

The Roadway is 30 ft. wide.

THE PLANNING AND EQUIPMENT OF THE SMALL HOUSE.—II.

BY EDWIN GUNN, A.R.I.B.A.

Domestic Economy as a Factor in Planning.

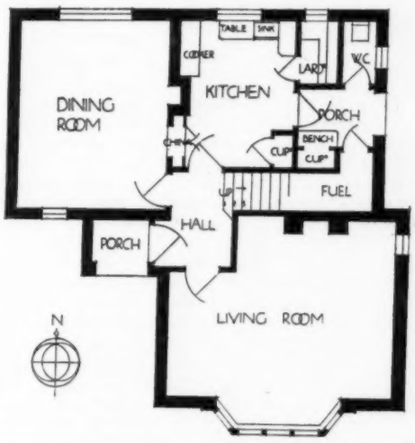
APART from the differing problems produced by, say, square plots and long plots, north aspects and south aspects, prospect coinciding or conflicting with aspect, level sites or sloping sites, there are ample opportunities for divergence from any assumed normal in what may be called the domestic ritual of different families—and in the material requirements of variously composed households. There is, for instance, the young and possibly expanding family, and the mature and settled family—with all stages intermediate; and all wanting houses. Then among those various types there will be cross-divisions produced by the servant problem—people who desire or are compelled to dispense with servants altogether; people who intend to run their houses with, say, a "daily girl" and occasional "char."; people who will employ one servant and do most of the work themselves; and yet others who desire their households entirely run for them by an adequate domestic staff. Each of the foregoing conditions may occur in differing combinations. There may be, for instance, a demand for a house on a long plot, facing south, sloping to the north with a desirable prospect that way, to accommodate a family of two who propose to keep one servant—and the right solution of this problem may be entirely altered where all the conditions but one remain similar; say, a wide plot, or a north aspect. All this may be pretty obvious, but it is too often neglected in practice, and insistence on its importance serves to illustrate the difficulty of dogmatising on a subject having such infinite possibility of variation.

Site Factors.

Where the site is that hateful thing known as a "building plot" the retention of any existing natural feature—a tree, shrub, length of old hedge or the like—which has been suffered to remain should not be abandoned lightly. Any such feature will serve to settle a new house on the site and relieve it of that bare and chilling appearance so characteristic of a raw neighbourhood. When a new planting scheme has taken shape, the abolition of any undesired features of this sort can be calmly considered.

Ample width of frontage is usually reflected in increased convenience of plan, and where accommodation is more than a narrow plot will properly carry, a few feet extra may so simplify as to reduce cost. As to aspect, there is much to be said for north sites, *i.e.*, those on which the road frontage faces north. Rightly used, this will permit the windows of the principal rooms to enjoy the privacy of the garden coupled with ample sun, the road front being devoted to hall, stairs, larder, kitchen, and possibly a window from the principal living room for outlook. East-and-west sites, of course, get sun all round during the day and are attractive during summer, but without sufficient elbow room to permit the living rooms to have outlook to the south they are apt to be sunless in winter, when rays except from that quarter have little power. A pleasing prospect likely to endure is always worth modification of plan for its attainment. Where it conflicts with aspect a through room is a useful resource to combine the two.

Specimen sets of circumstances of common occurrence may now profitably be considered in relation to plan, with a view to showing how modern ways of thought and recent facilities in the way of improved domestic appliances allow them to be met.



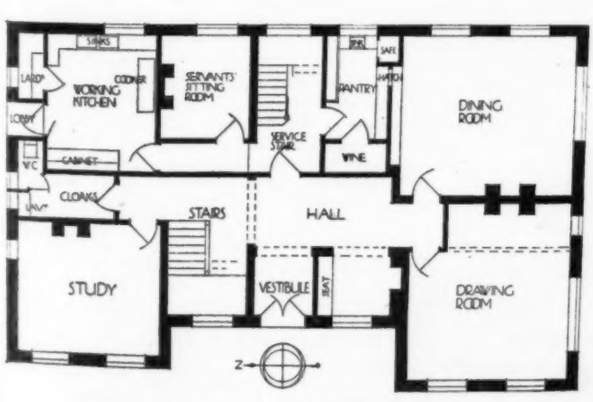
Ground-floor plan of a Servantless House.

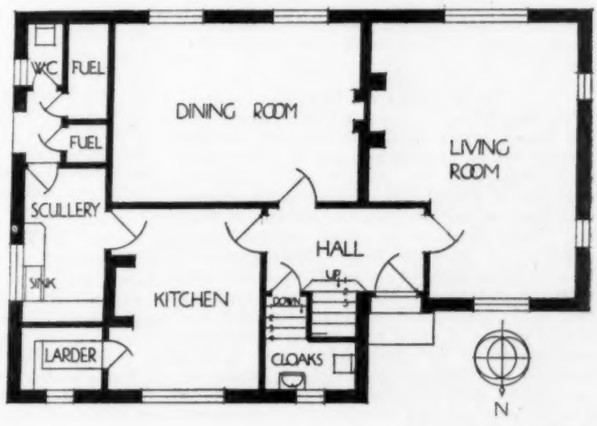
1.—The Small Household Without Servants.

The stock pattern (dining room, drawing room, kitchen, scullery) type of house is an anachronism when applied to this need. For the maximum of comfort coupled with the minimum of labour, the domestic arrangements can be schemed on the basis of a good living room with a much smaller second room usable either for meals or for the reception of any caller whom it may not be desired to introduce into the bosom of the family. In this type of house the kitchen may well be of ample space in view of its bigger population, of the portmanteau variety—planned so that from a central standpoint all culinary necessities are within easy reach—that is to say, larder, range, sink, stores, pots and pans, and tableware. In connection with a kitchen of this type the usual objections against a serving hatch do not arise, and a well-planned device of this kind saves many steps. The type which combines with china cupboard and cutlery store is most useful, as all tableware can be withdrawn on the dining-room side for laying the table, after which the door on that side is closed. When the meal is prepared it is placed in the hatch from the kitchen side and withdrawn direct to the dining room. Dirty plates and surplus food are returned through the hatch, cruets and clean utensils put straight away, and all is tidy. In due time the "returns" are withdrawn on the kitchen side, and, after washing, are replaced from that side ready for the next occasion. With a compact kitchen-scullery plan in this type of house it is highly desirable to provide a covered lobby or suchlike place where dusty jobs such as boot brushing may be performed.

2.—The "One-Servant" House.

This type is, and will probably remain, the most generally preferred—and for very good reasons. It conforms to that common-sense proverb, "Choose aye the middle course." If it has to accommodate either a smaller establishment (as in the last-described type) or a larger one, it can be made to do so with the minimum of inconvenience, and it is accordingly the most saleable property—a consideration for which most people should have some regard. The essential distinction between this type and the preceding one affects the kitchen. Since this will be the servant's sitting room, something more than a workroom of the kind last described is preferable, and despite the vast difference which exists between the modern glazed stoneware sink with neat fittings and the old greasy, evil-smelling stone sink, there still seems a general preference for the exclusion of this from the kitchen. Largely, of course, this is prejudice, but not solely. A second workroom is actually needed for cleanliness and comfort—one in which boots, saucepans, and suchlike uncleanly things may be cleaned or bestowed until cleaning is convenient, and if the sink and larder are both placed therein several advantages are gleaned. For instance—a gas cooker in the scullery will enable summer cooking to be banished thither, with manifest advantage to the comfort of the kitchen as a living room in hot weather; if the larder is as well ventilated as it should be, cold draughts will invade the kitchen in winter less than if it is in direct communication. If a copper is to be fitted, the case for a fully equipped scullery as such is even stronger. Where the chief cooking appliance is in the kitchen and the sink in the scullery, however, an arrangement where more than one door has to be passed between the





Ground-floor plans of "Servant-run" Houses.

two can never be regarded as wholly satisfactory. Planning which permits anyone facing the range to reach the sink without turning, by a side step and two or three forward paces, is probably best. A compromise only slightly less sightly than the separate scullery is the arrangement of sink, larder, and store cupboard as a recess or bay from the kitchen, leaving the latter square and unencumbered with the possibility of screening or curtaining the recess out of working hours.

3.—The "Servant-run" House.

This is the house of the man who can afford to do things in the best way, so far as consistent with the maintenance merely of a small household, without ostentation but staffed by sufficient servants to free the employer from the need for housework. Such a house should have three "reception rooms"—call them what you will—dining room, drawing room, study; dining room, lounge, library; living room, hall, den; choice varies—a ground floor lavatory and cloak room—a pass pantry as an intermediate or service apartment between the kitchen quarters and dining room—perhaps a back staircase, and a working kitchen somewhat on the lines of type No. 1 but with more ample space in view of its bigger population, and a servants' sitting room entirely separate from but convenient to it. The placing of this room often taxes the capacity of the planner. It is desirable that it should be reasonably private from the family part of the house, but it ought to be within ready reach of both main and trade entrances, as well as the kitchen quarters and stairs (or service stairs where they exist). It ought to have a pleasant outlook, but should not interfere with the privacy of the garden. An outlook over the drive or entrance court is perhaps best.

4.—A Bungalow.

The distressingly un-English word "bungalow" still conjures up a horrid vision of flimsy verandahs and painted fretwork surrounding a core of, say, two old railway carriages or an Army hut, or of one of the little less horrible pink asbestos roofed abominations which deface the outskirts of every town and much of the country. There are, however, plenty of bungalows which conform to quite other standards, and it seems a pity that a better name cannot be found for them.

The special qualities of bungalow arrangement demand some special ingenuity of planning so as to secure:—

(1) Living quarters and bedrooms arranged round separate centres of circulation—the latter as far removed and as well screened as possible from chance observation.

(2) A reasonable concentration of water services and drains, with selection of position not involving undue publication of the latter. This can be made to happen quite naturally in a house, but on one level is often found a conflicting motive with No. 1 which calls for division of scullery and bathroom at the centres of their respective quarters.

(3) A form of plan which does not involve a separate chimney for every flue (if coal fires are retained), which would multiply the chances of roof leakage, waste heat, and court chimney trouble, besides looking like a pincushion.

Dutch Bricks for Torquay.

Torquay Education Committee has decided to use Dutch bricks in the building of its new £28,500 school at Westhill, and a controversy has arisen over the matter. The architect objected to the English bricks on the ground that they contained lime, and contended that the Dutch would prove more architecturally effective. Further, the English brick quotation by a local firm meant an expenditure of between £200 and £300 more. We understand, however, that in the setting and making of the brick the Dutch variety is small and irregular, the consequence being that more labour and time is involved in building; that Cornish bricks do not contain lime, and that most of the building is to be stuccoed and therefore the appearance of the bricks is immaterial.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—ED.

Sewage Disposal.

SIR,—I can recommend Middleton's "The Drainage of Town and Country Houses," as giving very useful information as to the sizes and proportions of septic tank sewage disposal systems. READER.

P.C. Sums.

[REPLY TO "INQUIRER," JANUARY 8.]

SIR,—If the profit and fixing represented a *pro rata* percentage, I think the condition should rise or fall, as the case may be. The more expensive the material, the greater the amount of care, and in some cases, work involved. Especially is this noticeable in the case of stoves. In the case of heating, the builder is entitled to profit and attendance, but not fixing. In my opinion the two questions are more or less governed by the conditions of contract, given a fair amount of give-and-take by both parties.

G. W. H.

SIR,—If there is no express stipulation to the contrary in the contract, and a sum greater than the p.c. or provisional sum provided is spent, then the legal position appears to be that the excess is an "extra" and not governed by the contract; and in that case the contractor is entitled to recover reasonable remuneration for the extra outlay. (See Hobbs *v.* Turner [1902], 18 T.L.R. 235.) What is a reasonable remuneration is for the Court to determine; but, in practice, it is customary to allow the contractor for profit and fixing on the excess the same percentage as was added to the provisional sum, even though the work involved in fixing the higher-priced articles is no greater.

It is usual to make provision in the contract for sums of money to be available for expenditure by the employer or his architect on specified terms. To this provisional sum the contractor is invited to add his profit, &c., and he usually does so. If the whole amount is deducted and spent by the architect or owner, only the amount stated in the specification is deducted from the contract sum, the contractor retaining the amount he has allowed in his estimate for profit, &c. Unless there is an express stipulation in the contract governing the transaction, it matters not that the special contractor is paid direct by the building owner. "Inquirer" should bear in mind that where an omission from the contract is on a large scale, it is always a question whether the contractor is entitled to treat it as a breach of the contract or not. Much depends on the terms of the contract. Such a breach might involve a subsidiary contract or a claim for damages.

If more than the provisional sum provided in the contract is, in fact, spent by the building owner on the installation, and the contractor is in any way concerned therewith—as, for instance, in providing attendance to, and making good after, the special contractor, he could undoubtedly support a claim for remuneration for the same. A reasonable allowance would be one proportionate with the amount for profit and attendance added to the provisional amount in the contract, and this even though the installation, which has cost more, is the same size at that contemplated to come within the provisional amount of the contract.

P. C.

The "Strebel" Boiler.

If any of your readers could give me the name and address of the makers of this boiler, or that of the English agents for it, I should be greatly obliged. SCHOLASTIC.

Building Construction Methods.

SIR,—Please give the names of pamphlets, &c., dealing with recent building construction methods other than ferro-concrete.

STUDENT.

Shrinking Oregon Pine.

[REPLY TO "BUILDER," JANUARY 1.]

SIR,—I have myself found that there is no timber which gives worse results than Oregon or Columbian pine if not thoroughly well seasoned and dry. A while back I was asked by a good builder to allow him to use Columbian in a sun balcony which was being carried out under my supervision, and I at first refused. The contractor, in whom I had every confidence, persisted, and offered satisfactory guarantees, and I eventually gave way. The results, under probably the severest of tests for joinery, have been in every way satisfactory, and the panelling has not opened a sixteenth anywhere, in spite of the atmosphere being subject to extremes of damp and hot sun. I am therefore somewhat surprised to hear that your correspondent has had trouble with Oregon, which I believe is almost identical to Columbian, especially as he knows that the stocks were thoroughly well seasoned. If the stocks were not thus known, I should not have been surprised to hear that the panels had dropped out!

SEASON.

Sealed Cavity.

[REPLY TO "CAVITY," JANUARY 1.]

SIR,—I should say that gas risk under the conditions stated would be practically nil. There are really few parts in a house that are actually hermetically sealed, since most walls are to some extent porous. In the case of a joisted timber floor, plastered underneath, the movement of air through the plaster is appreciable; but in all probability this does not obtain in this case, the room being a bath room and having more likely than not a solid floor For "Cavity's" peace of mind, there is probably some means of ventilating the cavity if he does not feel confident about the matter.

SAFETY FIRST.

Oak Block Floors.

[REPLY TO "CLERK OF WORKS."]

Replies to this question (see our issue for January 8) have been posted direct.

Obituary.

At the last meeting of the R.I.B.A. the hon. secretary (Mr. E. Stanley Hall) announced the decease of Mr. Leonard Stokes (past-President), Mr. Benjamin Ingelow (a Fellow who has been a member of several of the Institute's committees), Sir W. Hamo Thornycroft (Hon. Associate), Mr. W. G. Cooke (Associate), and Mr. J. M. Garrood (Licentiate); and a motion that a vote of condolence be sent to the relatives was passed in silence.

We regret to announce the death of Mr. W. S. Black, aged 70, an Edinburgh artist and interior decorator. Designer of a number of war memorials, he was head of the design section of the Maund School of Art.

Town Planning.

The Town-Planning Department of the Ministry of Health gives the following particulars of town-planning schemes dealt with during the month ended December 31, 1925:—

Preliminary Statement (Stage II) in connection with the town-planning scheme of the undermentioned local authority has been approved by the Minister: Yorkshire (West Riding), Baildon U.D.C.

Resolutions (Stage I) deciding to prepare town-planning schemes have been received from the undermentioned local authorities, and, where necessary, approved or authorised by the Minister: Hertfordshire, Barnet U.D.C.; Kent, Chatham T.C., Sevenoaks U.D.C., Sittingbourne U.D.C.; Lancashire, Ramsbottom U.D.C.; Sussex, Eastbourne T.C.; Yorkshire (North Riding), Eston U.D.C.; Yorkshire (West Riding), Birstall U.D.C.

SOME OBSERVATIONS ON WORKMEN'S COMPENSATION.—II

(IN CONNECTION WITH THE AMENDING ACT, 1923).

AT the conclusion of our last article we set out section 7 of the Compensation Act, 1923, but it may be convenient to repeat it here, as the wording will have to be closely considered. It is as follows :—

"For the purposes of the principal Act, an accident resulting in the death or serious and permanent disablement of a workman shall be deemed to arise out of and in the course of his employment notwithstanding that the workman was at the time when the accident happened acting in contravention of any statutory or other regulation applicable to his employment, or of any orders given by or on behalf of his employer, or that he was acting without instructions from his employer, if such act was done by the workman for the purposes of and in connection with his employer's trade or business."

In our last article we pointed out that where there is disobedience to orders or regulations, whether statutory or otherwise, of late years the liability of the employer has depended upon whether that disobedience took the man out of the sphere of his employment, and that any question as to wilful misconduct can only arise where the man is acting within the sphere of his employment. The question as to the sphere of a workman's employment has, however, been complicated by having to be determined in connection with the expression, "arising out of and in the course of the employment," as the sphere of employment has been held not only to include acts done directly in furtherance of the objects denoted in the contract of service, but also acts which are incidental to the performance of that contract. The latest case where this question was considered at great length in the House of Lords is St. Helen's Colliery Company *v.* Hewitson (1924, A.C. 59; *The Builder*, April 25, 1924). In that case, Lord Atkinson expressed the opinion that the difficulties of reconciling the decided cases on this question had arisen from the omission on the part of some of the courts to frame some test which must be satisfied in order to bring an accident within the course of a workman's employment, and in the course of the judgments in that case certain tests were suggested. Lord Atkinson himself suggested as a test that a workman is acting in the course of his employment when he is doing something in discharge of a duty to his employer directly or indirectly imposed upon him by his contract of service, bearing in mind that the word "employment" as here used covers and includes things belonging to it or arising out of it, and he instanced examples of such incidental acts as taking food or drink to enable the man to continue his labours.

Lord Wrenbury is reported as saying, "If the workman is doing anything that his employer could and did, expressly or by implication, employ him to do or order him to do, and the accident occurs when he is doing it the case is within the Act," and further on in his judgment he says, "A useful test in many cases is whether at the moment of the accident the employer would have been entitled to give the man an order and the man would have owed the duty to obey it."

In that case a train had been supplied by the colliery company to take the workmen to their place of work on special terms, but as there was no obligation on the men to use the train it was held by the majority of the House, Lord Shaw of Dunfermline dissenting, that an injury sustained by the workman in course of transit did not arise "in the course of" the employment.

Another test was suggested by Lord Sumner in Lancashire and Yorkshire Railway Company *v.* Highley (1917, A.C. 352; *The Builder*, April 6, 1917). Was it part of the injured person's employment to hazard, suffer, or do that which caused his injury? Whilst in other cases this has been put that a risk must not be added to the employment by the workman doing some act outside its scope.

These preliminary observations have been necessary to enable the effect of the new section 7 to be appreciated, and it will be seen that it brings within the sphere of employment as defined by the words, "arising out of and in the course of the employment," as used in the principal Act and construed by the Courts, acts done by the workman in contravention of statutory or other orders or an act done without orders, *provided those acts were performed by the workman for the purposes of and in connection with his employer's trade or business*, but with this further limitation that the section only applies to cases resulting in death or serious and permanent disablement.

At the present time only two decisions are reported of the Court of Appeal on this section, but they indicate some of the difficulties that arise in interpreting it.

In Davies *v.* Gwauncaegurwen Colliery Company (1924, 2 K.B. 651; *The Builder*, September 26, 1924) the facts were as follows:—The applicant was employed as a screen-man for many years by the respondents and his place of work was on the front part of the first floor of the screens. Accommodation was provided on the ground floor for the workmen to leave their coats and take their meals, but for many years this man with the knowledge of his employers, had elected to hang up his coat and take his meals in a disused part of the works behind the screens. This part had been disused for some ten years and there was no necessity for the man to go there, and no other screen-man did so. On February 8, 1924, the flooring of this disused part being dangerous, a rail was put up to prevent access to it and the deceased workman was forbidden any longer to go there. On February 13 he had arrived early on a dark morning, had switched on the electric light as his first act of employment, but then apparently had got under the rail and hung up his coat in the disused part, as his coat was found hanging up there, but in turning round to go to the front part where he worked he must have fallen through an old machinery hole and sustained injuries from which he died.

To understand the report of this case it must be mentioned that letters were inserted in the section thus (*a*) in contravention of any statutory or other regulation, (*b*) any orders given by or on behalf of his employer (*c*) acting without instructions, whilst the last clause was lettered (*d*).

In the County Court the deputy judge had held that the man at the time of the accident was not doing an act for the purpose of and in connection with his employers' trade or business, a decision which we may say at once was confirmed by the Court of Appeal, but the judgments delivered require analysis on account of the explanation and criticism which they contain of the provisions contained in the section.

The Master of the Rolls having read the section to the end of the category numbered (*c*) is reported as saying: "Pausing here for a moment it is clear that the purpose of the section is to bring back within the ambit of the principal Act a workman who, according to the decisions up to December 31, 1923, would not be within the Act. . . . The section is not quite happily worded because categories (*a*) (*b*) and (*c*) really describe a workman 'acting' in a manner that would negative his right to compensation under the principal Act. The word 'acting' obviously means doing some act within the categories. The basis on which he is to be brought back to the advantages of the principal Act is, 'if such act was done by the workman for the purposes of and in connection with his employers' trade or business, . . . It is important to observe that a new phrase is introduced which so far as I know has not been used in Workmen's Compensation Acts before and that is 'his employers' trade or business.' The word is not 'employment,' but 'his employers' trade or business.' The condition which is to be the basis of the workman regaining his right to compensation is twofold. The act must fulfil both limbs of the sentence. It has to be done for the purposes of and in connection with the employers' trade or business." Lord Justice Warrington said that inasmuch as the man was doing an act in a prohibited area, but for section 7 of the new Act he would clearly have been excluded from compensation whether on the one hand he was performing an act for the benefit of his employers—that is, an act done in a wrong place, but such an act as a man so employed might do for the purpose of his employer—or whether on the other hand it was an act done by the man for his own purposes, although incidental to his employment, such as going to his mid-day meal, but in a place he was forbidden to go to. His Lordship then made the following most important pronouncement "Now, but for the words at the end of the section, 'if such act was done by the workman for the purposes of and in connection with his employers' trade or business'; the effect of the first part of the section would have made the man entitled to compensation in both the classes of forbidden acts to which I have referred; that is to say, acts which were merely incidental to the employment and acts which were directly acts of his employment and for the purposes of his employment. But these last words have limited the effect of the section and clearly indicate an intention to prevent it applying to acts merely incidental to the employment and confine its operation to acts done by the workmen for the purposes of and in connection with the employer's trade or business."

This is a most important pronouncement upon this section because, as we have indicated in the preliminary remarks which we made upon the law as it stood before the passing of this section, that was a point certain to be raised having regard to the cases decided under the principal Act.

We should, however, point out that Lord Justice Warrington, after the passage in his judgment to which we have just referred, is reported as having said, "Why the Legislature thought fit to introduce with the conjunction 'and' the words 'in connection with' the trade or business I cannot understand, because any act done for the purposes of the trade or business must be 'in connection' with it, and it seems to me the words 'in connection with' add nothing to the previous words." It appears to us just possible that the draughtsman used this expression considering it equivalent to "incidental to the employment," but if this be the explanation it illustrates the danger of introducing new expressions in Acts of Parliament which have received judicial consideration over a long term of years.

With reference to the observation of the Master of the Rolls that a reference to the employer's trade or business was new in connection with Workmen's Compensation, we may remind our readers that the expression is found in another connection in the principal Act in section 13, which excepts from the Act persons whose employment is of a casual nature, "employed otherwise than for the purposes of the employers' trade or business," and it is to be observed here the words "in connection with" do not appear.

We now come to Lord Justice Atkins' judgment in the above case. He characterised the section as not very artistically drawn, and observed that there seemed a fatality in legislating on Workmen's Compensation, as it seemed impossible to legislate in clear terms, and he described this section as a gilt-edged section for the lawyers.

Two of his criticisms of the section, *i.e.*, that it does not provide that the act which is done in contravention of a statutory or other regulation should have any causal connection with the accident, and that it does not provide that the act should be done after the employment has commenced within the ordinary course of employment and, therefore, that it is consistent with the section that a workman might be doing work at home for the purposes of his employers' trade or business, we think have been met in the subsequent decision in Borley *v.* Ockenden, but our space compels us to defer the further consideration of the section to our next article.

THE BUILDING TRADE

COST OF NEW RATES FOR NATIONAL INSURANCE OF WORK PEOPLE

By J. H. BARNS.

ON January 4, the new Government Rates for Insurance came into force. The following schedule shows the old and new rates :—

Old Rates.

	Paid by Employer.	Paid by Empolyee.	Total.
MEN.			
Health	5d. ..	5d. ..	10d.
Unemployment ..	10d. ..	9d. ..	1/7
Total..	1/3	1/2	2/5
BOYS.			
Health	5d. ..	5d. ..	10d.
Unemployment ..	5d. ..	4½d. ..	9½d.
Total..	10d.	9½d.	1/7
WOMEN.			
Health	5d. ..	4d. ..	9d.
Unemployment ..	8d. ..	7d. ..	1/3
Total..	1/1	11d. ..	2/-

New Rates.

MEN.			
Health & Pensions	9d. ..	9d. ..	1/6
Unemployment ..	8d. ..	7d. ..	1/3
Total..	1/5	1/4	2/9
BOYS.			
Health & Pensions	9d. ..	9d. ..	1/6
Unemployment ..	4d. ..	3½d. ..	7½d.
Total..	1/1	1/0½ ..	2/1½
WOMEN			
Health & Pensions	7d. ..	6d. ..	1/1
Unemployment ..	7d. ..	6d. ..	1/1
Total..	1/2	1/-	2/2

It will be noticed in the total that both workmen and employers have now to pay 2d. each per week additional, and both boys' and employers' new rate of contribution will be an increase of 3d. each per week, and for women and their employers the rates will be an additional 1d. per week respectively. It is impossible to state exactly the cost of these insurances as a percentage on the value of the work performed.

Unless one has a very definite knowledge of the work to be undertaken and the labour to be expended, the costs may be calculated somewhat as follows :—

A full standard week for a mechanic would be 44 hours at 1/9½d., £3 18s. 10d., say, in round figures, £4 per week, which should cover any additional payment for overtime and allow for any small variation in the rates, and from this amount the employer's contribution is 1/4, or about 1⅛ per cent. on the mechanic's wages.

For labourers, the cost of National Insurance per standard week of 44 hours, at 1/4½ per hour, £3 0s. 6d. wages, which may be increased to about £3 5s. to cover overtime and variations in rates, and for which the employer's contribution is likewise 1/4, or about 2 per cent. on the wages paid.

For boys from 16 to 18 years of age, the wages paid would be about 25/- per week, for which the employer's contribution is 1/0½, or about 4 per cent on the wages paid. Foremen and clerical staff receiving over £5 per week do not come within the scope of the Insurance scheme.

It is difficult to arrive at the cost of National Insurances, as the percentages may differ on every job in accordance with the various classes of labour required and the different rates of wages paid to them and the possibility of overtime or short time ; but taking the matter quite generally, 2 per cent. should be quite sufficient to add to the estimated wages to be paid on various works to cover the cost of Health, Pensions and Unemployment Insurance schemes.

The percentage of labour and materials will probably differ on every job, but if it can be taken quite generally that the cost of labour and materials are in the percentage of 50-50, then the over all cost of the insurances enumerated above would be, say, 1 per cent.

DILAPIDATIONS AND WASTE—II

By W. T. CRESWELL, Lic.R.I.B.A.

Associate (late Fellow) Surveyors' Institution ; F.R.S.I.; Barrister-at-Law.

Repair by Landlord where no Stipulation.

A LANDLORD is not under any liability to put demised premises into repair at the commencement of the tenancy, nor to carry out repairs to them during the continuance of the tenancy, unless he has contracted to do so, or he is under an obligation to repair imposed by statute. It matters not what the nature of the tenancy is, whether it is a letting from year to year, or for a term of years. He may let a tumbledown house unless it comes within a statute, or is let furnished. Even if he wishes to do repairs, unless there is an express power in the lease permitting him to do so, he has no right to go upon the premises at all ; and if he does so, he commits trespass, and may be restrained by an injunction. The fact that the premises are in disrepair may cause a landlord who has sublet, the forfeiture of his own lease, but he has no remedy.

The Implied Obligations of the Landlord.

There is an implied obligation on the part of a landlord that a house is fit for habitation in certain cases. When a furnished house is let, or where there is a combined agreement to let lodgings with attendance, there is an implied covenant on the part of the landlord that the premises are fit for habitation at the time of the letting ; and it applies to every part of the premises. It is no answer to an action for breach of contract for the landlord to say that he honestly believed in their fitness. It should be noted that the implication is, as at the commencement of the term, not during its continuance.

The implied obligation is broken if the premises become unfit owing to defects in the premises themselves ; as, for instance, where there is a defective drainage, or from the place becoming uninhabitable because of its dirty and verminous condition, or being dangerous to health on the ground of infection ; or there is actual risk incurred by entering upon premises recently occupied by a person suffering from an infectious disease. And though the remedy of the tenant is to remove from the premises on the discovery of the defect, and to bring an action for breach of contract, he cannot, however, do so on a mere sentimental apprehension of risk or dislike to the premises, where, for instance, brought about by the fact that a person has died on the premises from some infectious disease. (See Collins *v.* Hopkins, 1923, 2 K.B. 617.)

The Landlord's Obligations under Statutes.

Under Section 75 of the Housing of the Working Classes Act, 1890, there is, in the case of the letting of working-men's houses, an implied covenant that the premises are fit for occupation at the time of the letting. The section of the Act applies to the letting for habitation of a house, or part of a house, at a rental not exceeding per annum £20 in the Metropolis, £13 in Liverpool, £10 in Manchester or Birmingham, and £8 elsewhere. In Scotland or Ireland, £4. Under Section 12 of the Housing of the Working Classes Act, 1903, this statutory condition is to take effect notwithstanding any agreement to the contrary.

The last-named conditions were included in and extended by sections 14 and 15 of the Housing, Town-Planning, &c., Act, 1909, as to contracts made after December 3, 1909. So that, in letting any house or part of a house for habitation, at a rental not exceeding in the administrative county of London £40, in a borough or urban district with a population according to the last census for the time being of 50,000 or upwards, £26 ; and elsewhere, £16, there shall be implied a condition that the house is at the commencement of the holding in all respects reasonably fit for human habitation, and an undertaking that the landlord shall, during the holding keep the premises in all respects reasonably fit for occupation. But the above condition and undertaking are excluded, when the letting is for a term of not less than three years, upon the terms that the premises are put by the lessee into a condition reasonably fit for occupation, and the lease is not determinable by either party before the expiration of that term.

It will be noticed that the implied covenant under the Act of 1909 is that the premises shall be fit for habitation throughout the lease or holding.

Under Section 10 (1) of the Housing and Town-Planning Act, 1923, the limit given in the 1909 Act is increased, for places other than London, to £26.

A landlord cannot contract out of the Act of 1890, but appears to be able to do so in respect of the 1909 Act. If, however, he does not do so, he can enter and view the premises, at any time during the holding, which fact would appear to make him responsible for repairs, even though he receives no notice of the want of repair from the tenant. Also it would appear that under the Acts a tenant is entitled to sue the landlord for damages suffered through structural as well as through sanitary defects.

In Dunster *v.* Hollis (1918), 2 K.B. 795, however, a lessor of part of a house was held not liable to keep a common flight of steps in repair. In general a landlord who commits a breach of a statutory undertaking is liable only to his tenant in respect thereof, for in Ryall *v.* Kidwell (1914), 3 K.B.C.A., 135, the relation created by the Act of 1909 was held to be contractual, and between landlord and tenant only, and not to extend to strangers. Nor does it extend to a member of the tenant's family (see Middleton *v.* Hall [1913], 108 L.T. 804). An invasion of rats not bred on the premises, but coming from a sewer outside, does not constitute a breach of the statutory covenant of fitness for human habitation (see Stanton *v.* Southwick [1920], 2 K.B. 642).

Section 28 (1) of the Housing, Town-Planning, &c., Act, 1919, provides for the local authority, where the owner of a house suitable for occupation by persons of the working classes, fails to keep it reasonably fit for human habitation, requiring him to execute the necessary work swithin a reasonable time—not being less than twenty-one days. There does not, however, appear to be any right of appeal against the works prescribed as necessary by the local authority. The owner must make the best terms possible with the authority. If he cannot do what is necessary without reconstruction, he can, however, give notice of his intention of closing the house ; and a closing order is then deemed to have been made.

If the owner fails to execute the repairs, or if, when he gives a notice of intention to close, it is determined the notice to repair does not involve reconstruction, the local authority may do the work, and eventually recover from the owner the expenses incurred, which are, in the meantime, a charge on the premises.

A landlord is liable under sections 94 and 104 of the Public Health Act, 1875, and as to the Metropolis under Sections 4 and 11 of the Public Health (London) Act, 1891, when premises are or become subject to a structural defect, which gives rise to a nuisance, or become dangerous or injurious to health.

Under Section 2 (1) (*d*) of the Increase of Rent and Mortgage Interest (Restrictions) Act, 1920, 25 per cent. increase of the net rent is allowed

when the landlord undertakes the whole of the repairs, both inside and out, and the tenant is not under any express liability to repair, and "repairs" is defined in Section 2 (5) as meaning any repairs required for the purpose of keeping premises in good and tenantable repair. Further the landlord is deemed to be responsible for any repairs for which the tenant is under no express liability.

Under Section 18 (5) of the Rent and Mortgage Interest (Restrictions) Act, 1923, any premises in good and tenantable repair shall be deemed to be in a reasonable state of repair. What is good and tenantable repair will be dealt with in a subsequent article.

Scottish Law.

In Scotland the landlord in general bears most of the responsibility of repairs. He puts the premises in repair at the commencement of the demise, and continues to do so during the whole of the term, and keeps them in a tenantable and habitable condition. Further a lease implies that the premises are reasonably fit for the purpose of the letting.

Irish Law.

In Ireland the law is said to be identical with that in England. Covenants are not, however, strictly enforced, and when there is no covenant the obligation to repair appears in general to fall upon the landlord.

NEW BUILDINGS IN LONDON

Barnet.—The site is now being cleared for the enlargement of the Queen Elizabeth Girls' Grammar School, the cost of which is estimated at approximately £16,000. Messrs. R. Ginn & Son, builders, St. Andrew's Works, Hertford. Messrs. Talbot Brown & Fisher, architects, Burystead-place, Wellingborough.

Battersea.—It is proposed to enlarge the Town Hall and Municipal buildings, in Lavender-hill, S.W., by adding an additional story. Plans are to be prepared by the Borough Surveyor's department.

Bermondsey.—Plans have been approved by the local authorities for the enlargement of the Sunday schools in Lefroy-street, E., for the local Wesleyan Circuit. Mr George E. Withers, F.R.I.B.A., architect, 50, Cannon-street, E.C.4.

Brentwood.—A new County High School for Girls is to be built by administration, under the direction of Mr. John Stuart, F.R.I.B.A., Springfield Old Court, Chelmsford, at a cost of £33,225.

Croydon.—The Addiscombe Garden Estate, Ltd., propose to build a group of thirty-three residences. Messrs. Paish, Tyler & Crump, 1, Addiscombe-road, Croydon, architects to the estate.

Ealing.—A large portion of the Gunnersbury Park Estate is being developed for residential purposes, and about 400 houses are to be built, of various types. Mr. John Webber, builder, Augustus-road, Putney, S.W. 9. Messrs. Douglas Smith & Bowley, architects, 50, Queen Anne's-gate, Westminster, S.W. 1.

East Ham.—A fund of £12,000 is being raised to enable the reconstruction of St. Paul's Church to be carried out. The first section of the work is to be put in hand this year, and under the direction of Mr. C. Spooner, architect, Eyott Cottage, Chiswick, W. 4.

East Ham.—It is announced that to meet local trade the London Co-operative Society, Ltd., Maryland-street, E. 15, are to build branch premises in East Ham High-street, embracing various departments. Mr. L. G. Ekins, F.R.I.B.A., 99, Leman-street, E. 1, architect to the Society.

Hampstead.—A block of sixteen tenements is to be erected on a site in Sheriff-street, N.W.6, for the Hampstead B.C., at a cost of £14,000. Mr. Albert Monk, builder, Lower Edmonton, N. 9.

Ilford.—Plans have been prepared by Messrs. Suburban Developments, Ltd., Cranbrook-road, Ilford, for an additional 265 houses on part of the Valentine Park Estate.

Knightsbridge.—The Minister of Afghanistan has purchased the large residence, No. 31, Prince's-gate, S.W., for conversion into a legation. Messrs. Wilson & Co., surveyors, 14, Mount-street, W. 1.

Leicester-square.—Messrs. H. C. Russell, Ltd., drapers, Wardour-street, W. 1, have bought the freehold of the property at the corner of New Coventry-street and Leicester-square, W. 1. It is intended to pull down the existing buildings and to erect a large block of shops and showrooms and a restaurant.

Mitcham.—An expenditure of £32,450 has been allocated by the Surrey County Council for the erection of a new girls' secondary school, to accommodate about 300 scholars. Messrs. Jarvis & Richards, architects, 60, Tufton-street, Westminster, S.W. 1.

Nelson-street.—Plans have been prepared by Mr. Malcolm T. Saunders, architect to Messrs. Watney, Combe, Reid & Co., Ltd., brewers, Westminster, S.W. 1, for the rebuilding of the "Lord Nelson" public house.

Queen Square.—Alterations and additions are to be carried out to Nos. 4 and 5, Queen Square, Bloomsbury, W.C., to designs by Mr. J. H. Storrar, architect, Clock Chambers, London-road, Enfield, for the Retail Pharmacists' Union. Messrs. James Stewart & Sons, 174, West Green-road, Tottenham, N.15, builders

Richmond.—The Richmond Town Council have issued instructions for quantities for the placing of contracts for their proposed secondary school, which is to cost about £25,000 to £30,000. Messrs. Evill & Hadlam, quantity surveyors, 67, George-street, Hanover-square, W. 1. Messrs. Jarvis & Richards, architects, 60, Tufton-street, Westminster, S.W.

St. Helen's-place.—A large office building is to be erected on the eastern side of St. Helen's-place, Bishopsgate, E.C., for the Leathersellers' Company. Messrs. Dove Bros., Ltd., builders, Cloudesley-place, Islington, N. 1. Mr. Henry A. Saul, F.R.I.B.A., architect, 10, Gray's Inn-square, W.C. 1.

Shepherd's Bush.—Messrs. Lloyds Bank, Ltd., Lombard-street, E.C. 2, have purchased a shop in Uxbridge-road, W., where they propose, after extensive alterations and refittings, to open a new branch office.

Stratford, E.—A new front arcade window to Messrs. Boardman's premises between Nos. 58/64, Broadway, is to be carried out by Messrs. S. Elliott & Sons (Reading), Ltd., from the designs of Messrs. George Baines & Son, FF.R.I.B.A., of Westminster.

Sydenham.—Improvements and enlargements are being made to the "Fox and Hounds" public house, in Sydenham High-street, S.E., to the plans of Mr. C. E. Blackbourn, architect, 34, Finsbury-square, E.C. 2. Mr. W. Martin, builder, 10, Christopher-street, E.C. 2.

Willesden.—A row of shop property is to be erected in Church-road, N.W., for which Messrs. Montague Holmes & Sons, 33, Paternoster-row, E.C. 4, are the surveyors. Messrs. Lansdowne Building Co., builders, Lansdowne Works, Lambeth, S.W. 8.

Corrections.

Under the heading "Kennington," in our last issue, we inadvertently attributed the steelwork to the wrong firm. We are now informed that the whole of the steelwork for the new Oval stands has been designed and is being supplied by Messrs. Moreland, Hayne & Co., Ltd.

Under the heading "St. Mary Axe," in our issue for January 1, a new building which is being built from the designs of Mr. Delissa Joseph, F.R.I.B.A., is referred to as "Burrage House." The name of the new building is "Bunge House," and is so called after the name of the firm of Bunge & Co., Ltd., for whose accommodation the building is being erected.

CONCRETE IN HOUSE CONSTRUCTION

AT a meeting of the Institution of Structural Engineers, on January 7, discussion took place on Sir Charles Ruthen's presidential address on alternative methods of building. Sir Charles, in his introductory remarks, said that in his opinion concrete was the only satisfactory alternative to brick for a permanent and cheap house.

Mr. H. Gardiner Lloyd agreed that the main alternative to brick was concrete, and it was therefore urgent that the quality and suitability of concrete for house construction should be tried in every way possible. Cement was the most important constituent. To-day we had cements which were vastly superior to anything we had even three years ago, and it was very seldom that there was any serious defect with cement. Discussing aggregates for walls, Mr. Lloyd said the question of supplies of gravel and sand easily accessible to housing estates was of very great importance, and he believed the Institution had collated a considerable amount of valuable information as regards sources of supply. The waters in this country were nearly always alkaline, and it was only after heavy rains that they became neutral, so that it was generally found that the waters were suitable, provided they were not contaminated. Consistency was another important matter, and he emphasised the value of training men to judge what was the proper amount of water to use.

Mr. H. Kempton Dyson, discussing bonding in brickwork, said he imagined that the elaboration of the bonding in the past was due to the use of weak mortar, because Portland cement was not available, and, in view of the fact that builders could use a stronger mortar to-day, made with Portland cement, there was not the same necessity for bonding. In order that the public should be catered for in the matter of houses, the small man must be enabled to obtain a mortgage, but it was difficult to get a mortgagor's surveyor to recommend a substantial mortgage when the type of building construction was novel or untried. He believed that nowadays the surveyors would put a fairly good valuation on a concrete house, whereas at one time they would not. Referring to a suggestion by the President in his address, that a small concrete block that could be lifted with one hand should be used, Mr. Dyson said he had been urging that for years. It really meant using a large concrete brick, which was the cheapest if concrete block construction was used. He did not see why we should not turn out concrete houses quickly and cheaply by the method adopted by W. H. Lascelles at Croydon about 1878. These were made with a timber framework and concrete slabs. Lascelles had ground ashes and Portland cement in a mortar mill, and poured the result into moulds, and the facing slabs were made to imitate brickwork. The slabs were 3 ft. by 2 ft., and 3 in. thick, with a lap joint, and were screwed to the timber framework. The screws were countersunk and butted in with cement mortar. The slabs used inside, for the internal face of the buildings, were 3 in. thick, somewhat like paving stones, and screwed to the framework. The imitation brickwork slabs used externally were pointed up afterwards. The houses were very cheap and nice-looking.

Mr. W. J. H. Leverton regarded a 1 : 4 cement mortar as extravagant in some cases. For ordinary walling and for piers, where the weight to be carried was 10 or 12 tons per sq. ft., a 1 : 3 mixture was used.

Mr. H. J. Deane said he had been shown recently a sample of a very porous concrete, made of cement and sand, and treated, he supposed, somewhat in the same way as Sorbo sponges. It seemed to him that blocks made of such a material could be very easily handled, would be extremely comfortable from the point of view of the inmates of a house—warm in winter and cool in summer—and, with a suitable surfacing outside, there should be no difficulty in making them watertight. He believed a

first-class material could be produced by thoroughly drying and grinding clay and mixing it with cement, and afterwards mixing the whole with water. Such a material would be strong and watertight, and would have good insulating properties.

Mr. C. Spencer Payne said that in large concrete block construction less labour was involved than in brick construction, so that concrete block construction should be encouraged in order to increase the output of houses.

Sir Charles Ruthen said there were shortages of bricklayers in some districts and surpluses in others, but he believed it was fairly accurate to say that, nationally, the output of bricks was equal to the strength of the bricklaying arm of the building trade. He had no hesitation in saying that concrete building was the building of the future, not only for house-work, but for other work. It might be advantageous generally at the present time if work below the ground level in large buildings were carried out in concrete. There were many buildings with gigantic brick piers built two or three stories below the street. Those piers, if built of concrete, would be no less satisfactory, and would be cheaper; millions of bricks would be saved and thousands of bricklayers' hours, which was perhaps more important. The real trouble with concrete buildings was, first, that they were new; and secondly, that the concrete was made too well, because the walls of houses were too impervious, and there was a great deal of condensation on the interiors of the walls.

STEEL HOUSES

IN a letter to *The Times* on this subject, Mr. Ernest J. Brown, Director of the London Master Builders' Association, writes:—

"No opposition whatever is offered by the employers to the houses which Messrs. Weir propose to erect, provided always nothing is done to upset the agreements in the building industry which have taken years to establish, at great cost. Where steel covering is used, it should be erected by operatives engaged in the steel industry, under terms and conditions agreed for that industry. All work, such as foundations, drains, doors, windows, and internal work, which belongs to the building industry, should be carried out at rates and under conditions agreed between employers and operatives in that industry. If this is not the case, then trouble will surely arise upon contracts which are being carried out by builders for any authority that attempts to have steel or other houses erected under conditions other than those agreed in all cases where the labour is such as belongs to the building industry.

"There is no doubt that if the Government were to offer the building industry exactly similar terms as it now offers Messrs. Weir, plenty of houses could be speedily erected of approved types, whether by "alternative" methods or otherwise, by the building industry under its regulations and conditions, such houses being available at similar rents, and the industry only awaits the offer, which would readily be accepted. If, by any chance, failure ensued, there would be an end to controversy on the subject, and Messrs. Weir or any other firm would have a clear field for steel or other kind of houses."

Birmingham Trade Fair.

In connection with the Birmingham Section of the British Industries Fair, it has been found necessary to make a large extension to the permanent exhibition buildings at Castle Bromwich. This development is partly due to the important Electrical Section which this year, for the first time on a considerable scale, has been organised by the trades concerned. In addition, the General Engineering section of the Birmingham Fair is three times as large as on any former occasion.

It is officially announced that H.R.H. the Duke of York will pay a visit to the Birmingham Section of the British Industries Fair on or about February 18.

RATES OF WAGES IN THE BUILDING TRADE

Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.

	Masons.	Bricklayers.	C'rp'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Lab'rers.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Brighton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
E. Glam. (Mon. Vall.)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Grays	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Great Yarmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ipswich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lancaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London { 12 m. radius	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4
London { 12–15 m. radius	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/3½
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rugby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/1½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½

(For rates of wages in the Building Trade in Scotland, see page 136.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

JANUARY 18. — **Acton.** — PAINTING. — Painting and decorating to the houses on the East Acton Housing Estate, for the B.C. Borough Engineer, Municipal Offices, Acton, W.3.

✱JANUARY 18.—**Ashford, Kent.**—ALTERATIONS AND ADDITIONS.—To the Assembly Rooms, for the U.D.C. Edwin A. Jackson, L.R.I.B.A., Council's Architect, Ashford. Deposit £2 2s.

JANUARY 18.—**Bakewell.** — ADDITIONS. — Isolation hospital on Monyash-road, for the Haddon District Hospital Committee. Chas. Flint, L.R.I.B.A., The Quadrant, Buxton. Deposit £2 2s

JANUARY 18.—**Bradford.**—STORES.—Branch stores at Brownroyd-hill, for the Great Horton Industrial Society, Ltd. B. D. Fairbank & Sons, architects, 31, Bank-street.

JANUARY 18. — **Bristol.** — ALTERATIONS.— In the corridor and sanitary annexe of "A" block, Stapleton Institution, for the B.G. T. H. Lamb, Clerk to the Guardians, St. Peter's Hospital.

JANUARY 18.—**Bristol.**—BUILDING.—Of a switch-house at the Feeder-road generating station, St. Philip's, for the T.C. H. Faraday Proctor, Chief Engineer and General Manager, Electricity Department, Colston-avenue. Deposit £2 2s.

JANUARY 18.—**Cwmbran.**—SCHOOL.—A new central school at Cwmbran, for the Monmouthshire E.C. J. Bain, F.R.I.B.A., County Hall, Newport. Deposit £2 2s.

✱JANUARY 18.—**Dudley.**—MATERNITY HOME AND NURSES' HOME.—Erection of the "Rosemary Ednam" Home at Shaver's End, adjoining Burton-road, for the Guardians of the Union. Theo. W. Quarmby, Clerk, Union Offices, St. James's-road. Deposit £2 2s.

JANUARY 18 .— **Durham.** — EXTENSION. — To St. Hild's College, Durham. Joseph Potts & Son, architects and surveyors, 57, John-street, Sunderland. Deposit £3 3s.

JANUARY 18.—**Killiney and Ballybrack.**—REBUILDING.—Two sections of boundary wall on Ballinclea-road, about 90 lineal yds., for the U.D.C. Robert Cunningham, Clerk.

JANUARY 18.—**Norwich.**—HOUSES.—Houses on the Mile Cross estate.—Twenty-five houses designed by S. G. Livock, A.R.I.B.A.; 25 houses designed by A. F. Scott & Sons, AA.R.I.B.A.; 24 houses designed by S. J. Wearing, A.R.I.B.A., for the T.C. Respective Architects. Deposit £1.

JANUARY 18.—**Sheffield.**—STORES.—Stores, ambulance room, conveniences, &c., at Neepsend Generating Station, for the T.C. S. E. Fedden, M.I.M.E., General Manager and Engineer, Commercial-street. Deposit £2 2s.

JANUARY 18.—**Winlaton.**—REPAIRS.—Repair and restoration of Social Club, 43, Front-street, for the Committee. Steward.

✱JANUARY 19. — **Bermondsey.** — ALTERATIONS. —To rooms at the Bermondsey and Rotherhithe Hospital, Lower-road, Rotherhithe, in connection with storage of milk, for the Guardians of the Parish. Henry H. Reeve, Clerk, Guardians' Offices, 283, Tooley-street, S.E. 1, at office between 10 a.m. and 12 noon, on the 14th, 15th, 18th, and 19th.

JANUARY 19.—**Brighton.**—ALTERATIONS.—Alterations and additions to the Boys' and Girls' bathrooms at the Warren Farm Schools, near Brighton, for the P.C. E. Wallis Long, architect, 6, Old Steine.

JANUARY 19.—**Chesham.**—CHAPEL.—Small chapel at the Chesham Bois Burial Ground, for the Council. Kemp & How, FF.R.I.B.A., 4, Bloomsbury-square, London, W.C.1. Deposit £2 2s.

JANUARY 19.—**Cheshunt.**—CHAMBER.—Construction of a reinforced concrete pump chamber and other works for the accommodation of three electrically-driven centrifugal pumps at the Sewage Disposal Works, Waltham Cross, for the U.D.C. J. E. Sharpe, Engineer and Surveyor to the Council. Deposit £2 2s.

JANUARY 19.—**Clontarf.**— EXCHANGE. — Automatic Telephone Exchange at Clontarf, Co. Dublin, for the Commissioners of Public Works. J. J. Healy, Secretary, Oifig Oibreach Puibli (Office of Public Works), Baile Atha Cliath (Dublin). Deposit £1.

JANUARY 19. — **France.** — CEMETERIES.—Construction of approximately twenty-four in France, for the Imperial War Graves Commission. Contract, 1926, "Z." Secretary, Works Department, Imperial War Graves Commission, 82, Baker-street, London, W.1.

JANUARY 19. — **London.** — CONVERSION WORK. —Converting the Drill Hall, Somerset House, into a boiler house and offices for the Commissioners H.M.O.W. Contracts Branch, King Charles-street, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

JANUARY 19. — **London.** — PAINTING. — External and internal of the South-Eastern District Post Office, &c., in the Borough High-street, for the H.M. Office of Works. Contracts Branch, King Charles-street, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

JANUARY 19.—**Plymouth.**—PAVILION.—Tea pavilion on the Hoe, for the C.B. J. Wibberley, Borough Engineer and Surveyor. Deposit, £2 2s.

JANUARY 20.—**Ashton-under-Lyne.**— PAINTING.— Decoration and painting of the interior of the Trafalgar-square U.M. church and school, Ashton-under-Lyne. E. C. Hewitt, 54, Denton-road, Audenshaw, Manchester.

JANUARY 20.—**Belfast.**—PAINTING.—For (*a*) structural improvements to verandah at the Municipal Hospital for Tuberculous Children, Graymount; (*b*) painting work to the interior of the hospital block at the Municipal Sanatorium, Whiteabbey, for the C.B. City Surveyor.

JANUARY 20.—**Kilkenny.**—PASSAGES.—Laying tiled passages and other works at St. Canice's Catholic Church, Kilkenny. W. H. Byrne & Son, architects, 20, Suffolk-street, Dublin.

JANUARY 20.—**London.**—ROOF.—Construction of a roof over filtration plant at the Public Baths, Hornsey-road, N.19, for the Islington B.C. Borough Engineer.

JANUARY 20.—**Manchester.**—CLINIC.—Erection of the Newton Heath school clinic, for the E.C. P. M. Heath, Town Clerk. Deposit £1 1s.

JANUARY 20.—**Rochdale.**—GARAGE.—'Bus garage in Mellor-street, for the C.B. S. H. Morgan, Borough Surveyor.

JANUARY 20.—**Rochdale.**—HOUSE.—Transformer-house at the Corporation Electricity Works, for the C.B. S. H. Morgan, Borough Surveyor.

JANUARY 20.—**Southend-on-Sea.**—SORTING OFFICE. —Erection of at Southend-on-Sea for the Commissioners H.M.O.W. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. Cheques payable to the Commissioners.

JANUARY 21. — **Abergavenny.** — ALTERATIONS. — Alterations and erection of additional vagrant cells, association rooms, baths, wash-house, &c., for about 50 casuals at the Institution, Hatherleigh-place, Abergavenny, for the Abergavenny and Crickhowell Unions. B. J. Francis, architect, 5A, Monk-street. Deposit £3 3s.

JANUARY 21.—**Astbury.**—ADDITIONS.—Alterations and additions at the county police station, for the Cheshire C.C. H. Beswick, F.R.I.B.A., County Architect, Chester. Deposit £1 1s.

JANUARY 21.—**Clydebank.**—HOUSES.—170 houses at the West Kilbowie site, for the T.C. Burgh Surveyor. Deposit £2 2s.

JANUARY 21.—**Manchester.**—ALTERATIONS.—At the Goulden-street Police and Ambulance Station, for the T.C. City Architect. Deposit £1 1s.

JANUARY 21.—**Newport** —SUBWAY.—Extension of Thomas-street subway and other works at Newport High-street Station, for the G.W.R. Engineer. Deposit £2 2s.

JANUARY 21.—**Waunymer.**—PAVILION.—Pavilion at Waunymer, Kenfig, near Porthcawl, for the Executive Committee of the Pye and Kenfig Golf Club. J. Morgan and O. O. James, joint hon. secretaries.

JANUARY 22.—**Bridgend.**—ALTERATIONS.—Alterations, &c., of cow house, stables, &c., at Tregroes House, Pencoed, for the Glamorganshire Agricultural Committee. W. E. R. Allen, Deputy Clerk of the C.C., Glamorgan County Hall, Cardiff.

JANUARY 22.—**Caerphilly.**—HOUSES.—Fifty houses on the Pwllynant site, near Llanbradach, and the formation of roads and construction of sewers in connection therewith, for the U.D.C. B. Jenkins, Housing Officer. Deposit £2 2s.

JANUARY 22.—**Glasgow.**—EXCHANGE.—Telephone exchange at Bearsden, for H.M.O.W. Architect, H.M. Office of Works, 122, George-street, Edinburgh. Deposit £1 1s.

JANUARY 22.—**Manchester.**—CONVENIENCES.—Three sets of conveniences at Heaton Park, for the T.C. City Architect. Deposit £1 1s.

✱JANUARY 23. — **Basingstoke.** — PULLING DOWN AND REBUILDING.—Pulling down of certain portions and complete rebuilding (after fire) of the Corn Exchange Cinema in Wrote-street, together with the provision of public lavatories, for the Corporation. R. H. Wanklyn, Clerk, Municipal Buildings, Basingstoke. Deposit £2 2s.

JANUARY 23.—**Cardiff.**—HOUSES.—Fifty-nine houses at Ely, for the T.C. Architect. Deposit £2 2s.

JANUARY 23.—**Edinburgh.**—CONVENIENCES.—Public conveniences and boundary walls at Cramond Village, for the T.C. A. Horsburgh Campbell, Burgh Engineer.

JANUARY 23.—**Forehoe.**—COTTAGES.—Three pairs of cottages at Spooner-row, Wymondham, for the R.D.C. Wm. Partridge Smith, Council Offices, Wymondham. Deposit £1.

JANUARY 23.—**Hartismere.**—COTTAGES.—Brome, one pair of cottages; Gislingham, one pair of cottages; Occold, one pair of cottages; Redgrave, one pair of cottages; Wyverstone, one pair of cottages; Bacton, block of four cottages; Wortham, two pairs of cottages, for the R.D.C. B. Catchpole, Sanitary Inspector. Deposit £1 1s.

JANUARY 25.—**Cardiff.**—PAINTING.—Painting external wood, stone, and iron work of portions of the City Mental Hospital. Clerk and Steward of the Mental Hospital.

JANUARY 25.—**Chelmsford.**—COTTAGES.—For (1) 1 cottages at Great Baddow housing site, together with the construction of a length of new road (195 yards in length), and the required drainage and excavation for water main; (2) eight cottages at Boreham; (3) four cottages at Chignall (Gray's Lodge site), for the R.D.C. James Dewhurst, Engineer and Surveyor, Council Offices, Waterloo-lane, Chelmsford.

✱JANUARY 25. — **Chiswick.** — FLATS. — Erection of a block of 24 adjoining Belmont-road, for the U.D.C. Edward Willis, F.S.I., M.Inst.C.E., architect, Town Hall. Deposit £3 3s.

JANUARY 25.—**Cupar.**—HOUSES.—Twenty houses, Westport site, for the T.C. C. R. Douglas, F.F.S., Surveyor, Church-square, St. Andrews. Deposit £1 1s.

✱JANUARY 25.—**Durham.**—HOUSES.—14 houses in blocks of two and four on the Whinny Hill site, for the City Council. J. W. Green, City Engineer and Surveyor. Deposit £2 2s.

JANUARY 25.—**Kingston-upon-Thames.**—ADDITIONS. —To the Grammar School, for the T.C. Jarvis & Richards, architects, 60, Tufton-street, Westminster, S.W. 1. Deposit £2 2s.

JANUARY 25. — **London.** — FLATS. — Erection of a block of flats, containing 104 tenements, at Wenlock-road, City-road, Shoreditch, for the Corporation. City Engineer, Guildhall, E.C. 2. Deposit £2 2s.

JANUARY 25.—**Maltby.**—HOUSES.—For (*a*) 36 houses, 24 parlour and 12 non-parlour type; (*b*) making of roads, and (*c*) construction of sewers in connection therewith on the Hall estate, for the U.D.C. Morgan R. Jones, Engineer and Surveyor. Deposit £2 2s.

JANUARY 25.—**Newton Abbott.**—HOUSES.—Eight houses at Liverton, Ilsington, and eight houses at Hennock, for the R.D.C. B. H. Palmer, L.R.I.B.A. 11, Union-street.

JANUARY 25.—**Stone.**—HOUSES.—Fifty-eight parlour houses, on the site off Oulton-road, for the U.D.C. A. P. Miller, architect, Stone House, Stone.

JANUARY 25.— **Tipton.**— HOUSES.— Twenty-two houses (non-parlour type), on a site at Summerhill, and eighteen similar houses in Furnace-parade, Tipton, for the U.D.C. Wm. H. Jukes, M.E., Engineer and Surveyor, Public Offices, Owen-street. Deposit £2 2s.

JANUARY 26.—**Bettwsycoed.**—LAVATORIES.—Conversion of the building known as Llangwy Cottage, Bettwsycoed, into public building, including lavatories, &c., for the U.D.C. Salisbury Jones, Clerk and Solicitor to the Council, Gwydyr House, Llanrwst.

JANUARY 26. — **Bournemouth.** — SUPERSTRUCTURE. —Of the new pavilion in the Pleasure Gardens, for the C.B. Town Clerk, Town Hall, Bournemouth. Deposit £2 2s.

JANUARY 26.—**Mountain Ash.**—HOUSES.—Forty-eight houses on the Council's Pontcynon (Abercynon) site, and 48 non-parlour houses on the Council's Penrhiwceiber site, for the U.D.C. W. H. Williams, architect, Town Hall.

JANUARY 26.—**Ruislip.**—POST OFFICE AND TELEPHONE EXCHANGE.—Erection of, at Ruislip, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

JANUARY 27.—**Darenth.**—LIGHTING.—Installation of electric lighting at the training colony, Dartford, for the M.A.B. T. Cooper, M.Inst.C.E., M.I.Mech.E., Engineer-in-Chief, Office of the Board, Victoria Embankment. E.C.4. Deposit £1.

JANUARY 27. — **London.** — TELEPHONE EXCHANGE.—Erection of, in Bermondsey, S.E., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

✱JANUARY 27. — **London.** — NEW LABORATORY BUILDINGS.—To be erected at Park Hospital, Hither Green, S.E.13, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 27.—**Tenterden.**—LIGHTING.—Wiring the institution at Tenterden for the installation of electric light, for the B.G. J. Munn Mace, Clerk to the Guardians.

JANUARY 28.—**Nottingham.** — DEPOT. — Buildings, comprising sheds, offices, and sale shops, covering an area of 2½ acres, for a new tram depot, for the T.C. T. Wallis Gordon, City Engineer. Deposit £3 3s.

JANUARY 28.—**Richmond (Surrey).**—HEATING.— Installation of steam boiler, calorifiers, heating, hot-water supply, at the Grove-road Institution, for the B.G. T. J. R. Kiernan, Consulting Engineer, 17, Victoria-street, Westminster, S.W.1. Deposit £2 2s.

JANUARY 29.—**Chelmsford.**—HOUSES.—250 houses on the Boarded Barns estate, for the T.C. E. J. Miles, Borough Engineer. Deposit £2 2s.

✱JANUARY 29.—**London.**—TELEPHONE EXCHANGE. —Completion of the Royal Telephone Exchange, London, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit, £1 1s. (cheques payable to the Commissioners).

JANUARY 29.—**Manchester.**—WIRING.—Of electric lighting and power circuits in offices, stores, and workshops, High-street depot, Chorlton-on-Medlock, for the T.C. H. C. Lamb, manager, Electricity Department Deposit £1 1s.

JANUARY 29.—**Rotherham.**—SCHOOL.—Extension of the Badsley-Moor-lane Council school, to provide additional accommodation for 250 children, for the C.B. C. A. Broadhead, A.R.I.B.A., Devonshire House, Moorgate.

✱JANUARY 30.—**Braintree.**—HOUSES.—Erection o 54 houses in three types on the Cressing-road site, for the Braintree U.D.C. D. G. Armstrong, Great-square, Braintree. Deposit £2 2s.

JANUARY 30.—**Cardiff.**—HOUSE.—At Tongwynlais, and foreman's bungalow at Quaker's Yard, in connection with the Taff Fawr pipe line, for the Corporation. R. Lehane, Mackenzie & Shand, Ltd., Civil Engineers, Glan-y-llyn, Taff's Well.

JANUARY 30. — **Gosforth.** — HOUSES. — 84 semi-detached houses on the Coxlodge site, for the U.D.C. G. Nelson, engineer and surveyor.

JANUARY 30.—**Manchester.**—SCHOOL.—Open-air school at the Rose Hill Convalescent Home, Langley lane, Northendan, Cheshire, for the B.G. A. J. Murgatroyd, architect, 23, Strutt-street. Deposit £2 2s.

✱JANUARY 30.—**Newmarket.**—HOUSES.—Erection of three pairs at Fordham, for the R.D.C. A. E. Austin, 4, Hill's-view, Great Shelford, Cambs.

JANUARY 30.—**Sutton Coldfield.**—ALMSHOUSES.—Ten almshouses at Walmley, for the Municipal Charities. H. H. Farmer, F.R.I.B.A., Hickton, Farmer & Farmer, architects 57, Colmore-row, Birmingham.

✱JANUARY 31.—**Brentwood.**—ALTERATIONS.—To the existing cowhouses and the building of a new cowhouse and dairy building with lavatories, &c., in connection therewith, at the Branch Institution, for the Hackney B.C. T. Talfourd Cumming, F.R.I.B.A., of King Edward Buildings, Reading. Deposit £3 3s.

FEBRUARY 1.—**Dublin.**—HOUSES.—Ninety-six houses on the Croydon-park extension of the Marino housing scheme, for the C.B. City Architect, Exchange Buildings, Lord Edward-street. Deposit £2.

FEBRUARY 1.—**London.**—DWELLINGS.—Erection of two blocks, &c., on the Holland estate (Bell-lane area), Spitalfields, for the L.C.C. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2 to the cashier.

FEBRUARY 1.—**Salford.**—EXTENSION.—Of the Poor Law offices in Eccles New-road, for the B.G. W. Telford Gunson & Son, architects, 10, Marsden-street, Manchester. Deposit £2 2s.

FEBRUARY 2.—**Abingdon.**—HOUSES.—Erection of thirty-six on the Boxhill Housing Estate, for the Borough Council. J. G. T. West & Son, FF.R.I.B.A., Architects to the Council, Abingdon. Deposit £2 2s.

FEBRUARY 2.—**Hunslet.**—HOUSES.—Twenty-two houses at Templenewsam, near Leeds, including all paths, drains, fences, &c., for the R.D.C. W. B. Pindar, Clerk to the Council, Leek-street, Hunslet, Leeds.

FEBRUARY 2.—**Killarney.**—ROOMS.—Refreshment rooms at Killarney Station, for the Great Southern Railways. Company's Chief Engineer, Broadstone Station, Dublin. Deposit £1 1s.

FEBRUARY 2.—**Leicester.**—SCHOOL BUILDINGS.—Erection of, for 720 girls, for the City Council. F. P. Armitage, Director of Education, Town Hall. Deposit £2 2s.

✱FEBRUARY 2.—**Leicester.**—TELEPHONE EXCHANGE—System telephone exchange, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

✱FEBRUARY 4.—**London.**—EXTENSIONS.—To a steel frame and reinforced concrete sub-station at Lomas Buildings, Mile End, Old Town, for the Metropolitan Borough of Stepney. Borough Engineer and Surveyor, Municipal Offices, Raine-street, E.1, between 10 a.m. and noon. Deposit £2 (Treasury Notes).

✱FEBRUARY 6.—**Eccles.**—HOUSES.—Erection of twelve parlour-type in two blocks, containing six houses in each block, in Gaskell-road, for the Health Committee of the Corporation. T. Elce, M.Sc.Tech., A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall. Deposit £2 2s.

✱FEBRUARY 6.—**Smethwick.**—HOUSES.—Erection of 44 parlour and 162 non-parlour, Contract Nos. 5, 6 & 7, for the Housing Committee of the Borough Council. Roland Fletcher, Assoc.M.Inst.C.E., Borough Engineer and Surveyor, Council House. Deposit £5 5s.

FEBRUARY 8.—**Clutton.**—HOUSES.—Sixteen houses at Timsbury, for the R.D.C. Mr. Hawker, architect, Council House, Temple Cloud. Deposit £2 2s.

FEBRUARY 9.—**West Riding.**—BUILDING.—For (1) erection of new conveniences at Otley North Parade Council school, and (2) proposed alterations at Baildon Sandal Council school, for the E.C. Education Department, County Hall, Wakefield.

✱FEBRUARY 15.—**Windsor.**—HOUSES.—Erection of twelve parlour-type houses, including fences, paths, &c., on the building site at Bagshot-road, Sunninghill, for the R.D.C. W. Menzies, F.S.I., Englefield Green, Surrey. Deposit, £1 1s.

✱FEBRUARY 15.—**Windsor.**—HOUSES.—Erection of twelve parlour-type houses, including fences, paths, &c., on the building site at Church-road, Old Windsor, for the R.D.C. W. Menzies, F.S.I., Council's Architect, Englefield Green, Surrey. Deposit, £1 1s.

FEBRUARY 19.—**Ireland.**—COTTAGES.—For 40 in Belfast Rural District; 4 in Carrickfergus Rural District; 16 in Bangor Rural District; 12 in Holywood Rural District; 6 in Lisburn Rural District; 12 in Larne Rural District; 4 in Ballymena Rural District; 2 in Portrush Urban District; 10 in Strabane Urban District; 4 in Omagh Urban District; 14 in Dungannon Urban District; 10 in Enniskillen Urban District, for the Government of Northern Ireland. W. R. Maconkey, Assistant Secretary, Ministry of Finance, Belfast. Deposit £5.

NO DATE.—**Airedale.**—HOUSES.—House and shop, for Mr. Perkins, and house and shop for Mr. Brown. Bienkinsopp & Scatchard, architects and surveyors, Bank-street, Castleford. Deposit £1 1s.

NO DATE.—**Bangor.**—REPAIRS.—Repairs and painting work at the police buildings, for the Carnarvonshire C.C. T. Owen, P.A.S.I., County Surveyor, Carnarvon.

NO DATE.—**Chew Stoke.**—ALTERATIONS.—Alterations and additions to the schools. M. Froud, L.R.I.B.A., architect, St. Stephen's Chambers, Baldwin-street, Bristol. Deposit £2 2s.

NO DATE.—**Nottingham.**—PAINTING.—For internal cleaning and painting at (*a*) reading room, Hucknall-road, Carrington, (*b*) Victoria Baths, Steinton, for the T.C. T. Wallis Gordon, City Engineer.

NO DATE.—**Otterton.**—HOUSE.—Tea house and other buildings at Ladram Bay, Otterton, East Devon. J. A. Lucas, F.R.I.B.A., chartered architect and chartered surveyor, Guildhall-chambers, High-street, Exeter.

MATERIALS, etc.

JANUARY 18.—**London.**—MATERIALS.—Asphalte repairs, castings, granite, paints, &c., pitch, creosote oil, &c., Portland cement and grey lime, sand, ballast, shingle, &c., stoneware goods, timber, wood paving blocks, York and patent paving, for the Finsbury B.C. Borough Surveyor, Town Hall, Rosebery-avenue, E.C.1.

JANUARY 18.—**Wakefield.**—PIPES.—Cast-iron pipes and special castings: 4,600 tons 22 in. pipes, 6,200 tons 20 in. pipes, for the T.C. C. Clemesha Smith, Waterworks Engineer. Deposit £2 2s.

JANUARY 19.—**Dorset.**—MATERIALS.—Tarmacadam granite, basalt, limestone, refined tar, other surface dressing material, for the C.C. W. T. Fletcher, County Surveyor, County Offices, Dorchester.

JANUARY 19.—**Dover.**—GRANITE.—1,300 tons granite chippings and siftings, 450 tons granite dust, for the T.C. Wm. Boulton Smith, Borough Engineer.

JANUARY 20.—**London.**—MATERIALS.—York paving, broken British granite, wood blocks, asphalt paving works, hoggin and ballast, and lime and cement, for the Chelsea B.C. W. R. Manning, Borough Surveyor, Town Hall, King's-road, S.W.3.

JANUARY 20.—**Manchester.**—TERRA-COTTA.—Buff terra-cotta for the Newton Heath School Clinic, for the E.C. P. M. Heath, Town Clerk. Deposit £1 1s.

JANUARY 21.—**London.**—MATERIALS.—Guernsey granite, Quenast granite, granite siftings, shingle, tar and bitumen spraying work, lime, cement, and bricks, iron goods, for the Kensington B.C. H. Rapson, Town Clerk, Town Hall, Kensington, W.8.

✱JANUARY 22.—**Chiswick.**—MATERIALS.—Lime and cement, Buxton or grey lime, Kentish flints, hoggin, blue Guernsey granite, Welsh granite, and other broken roadstone, granite kerb, channel and setts, York or other paving, tarred granite, slag, and limestone, tar paving, tar, asphalte, pipes, gullies, &c., for the U.D.C. E. Willis, engineer and surveyor.

JANUARY 22.—**London.**—STEELWORK.—Structural steelwork, for the South Indian Railway Co. R. White & Partners, Consulting Engineers, 3, Victoria-street, Westminster, S.W.1.

JANUARY 22.—**Sleaford.**—MATERIALS.—Granite, slag, &c., for the R.D.C. E. H. Godson, Clerk to the Council.

JANUARY 23.—**Driffield.**—MATERIALS.—Tarred macadam, whinstone, dry slag, gravel. T. Casson Beaumont, surveyor.

JANUARY 23.—**Essex.**—MATERIALS.—Stoneware pipes, distilled tar, broken granite, and tarred slag, for the C.C. Wm. H. Morgan, chartered civil engineer, County Surveyor, Old Court, Chelmsford.

JANUARY 23.—**Leighton Buzzard.**—MAINS.—770 yards of 3 in. cast-iron S. and S. water main coated with solution, for the U.D.C. R. F. A. Tutt, Clerk to the Council.

JANUARY 23.—**Lindsey (Lincs).**—MATERIALS. Tarred macadam, broken stone and slag, and refined tar, for the C.C. A. G. Bradshaw, County Surveyor, Newland House, Lincoln.

JANUARY 23.—**London.**—MATERIALS.—Native or rock mastic asphalte, gravel, hoggin, and loam, wood paving blocks, lime and cement, Thames and other ballast, sand and shingle, iron, steel, &c., for the Paddington B.C. W. F. Abbiss, Town Clerk, Town Hall, Paddington, W.2.

JANUARY 23.—**Southampton.**—MATERIALS.—Road stone and tarred slag, and kerb and setts, for the County of Southampton. W. J. Taylor, County Surveyor, The Castle, Winchester.

JANUARY 23.—**Southampton.**—TAR.—Tar, refined, for the County of Southampton. W. J. Taylor, County Surveyor, The Castle, Winchester.

JANUARY 25.—**Rathmines and Rathgar.**—RAILINGS.—100 ft. of heavy vertical bar railing, 5 ft. 6 in. high overgound, and 9 ft. double gate, complete with gate post, for the U.D.C. Seacombe Mason, Clerk of the Council, Town Hall, Rathmines, Co. Dublin.

JANUARY 25.—**Uckfield.**—MATERIALS.—2,625 tons of tarred macadam, 600 tons granite, 6,500 tons Mendip, 2,000 tons flint grit or other suitable material for tar binder, 250 tons footpath gravel, 60,000 gallons tar or other compound suitable for the treatment of road surfaces, for the R.D.C. Capt. E. W. Ray Johnson, Highways Surveyor, Surveyor's Office, Buxted, Sussex.

JANUARY 26.—**Ryde (Isle of Wight).**—MATERIALS.—1,000 tons of ¼ in. clean granite chippings, for the T.C. T. J. Fawdry, Town Clerk.

JANUARY 26.—**Stockbridge.**—MATERIALS.—Limestone, gravel, &c., for the R.D.C. A. Hunt, surveyor, Broughton.

JANUARY 28.—**Liverpool.**—MATERIALS.—Timber, ironmongery, &c., steel sheets, wrought iron, and files, iron castings, oils, paints, &c., for the T.C. The General Manager, Liverpool Corporation Tramways, 24, Hatton Garden.

JANUARY 29.—**Alton.**—MATERIALS.—Broken granite and limestone, for the R.D.C. A. O. Crew, Rodney House.

JANUARY 29.—**Croydon.**—MATERIALS.—Broken granite, granite chippings, granite dust, granite kerb, tarred Kentish ragstone, tarviated slag macadam, for the C.B. Borough Road Surveyor.

JANUARY 30.—**Hertfordshire.**—MATERIALS.—Hand-picked surface flints, dug gravel, hoggin, shingle and sand, for the C.C. A. E. Prescott, Lt.-Col., County Surveyor, County Surveyor's Office, Hatfield.

FEBRUARY 1.—**Amersham.**—MATERIALS.—Road materials, gravel, flint, &c., for the R.D.C. A. H. Prince, District Surveyor, High-street.

FEBRUARY 1.—**Folkestone.**—MATERIALS.—Cast iron and Portland cements, &c., for the T.C. A. E. Nichols, Borough Engineer.

FEBRUARY 1.—**West Suffolk.**—MATERIALS.—For (1) broken and unbroken road material; (2) pit gravel, sand, and unbroken pit stones, for the C.C. E. H. Bond, County Surveyor, Shire Hall, Bury St. Edmunds.

FEBRUARY 3.—**London.**—MATERIALS.—Asphalte, bitumen, pitch, &c., ballast, sand, &c., lime, bricks, pipes, sewer ironwork and timber, &c., for the Southwark B.C. P. H. Gray, Town Clerk, Town Hall, Walworth-road, S.E.17.

FEBRUARY 10.—**Middlesex.**—MATERIALS.—700 tons of 2 in. machine-broken Clee Hill granite, and ¼ in. granite chippings, 2,750 tons of clean granite chippings for tar-painting work, also for 2,750 tons tarred slag macadam, for the C.C. A. Dryland, County Engineer, County Engineer's Department, Middlesex Guildhall, Westminster, S.W.1.

NO DATE.—**Kilmarnock.**—KERBING.—3,050 lin. yds. of 5 in. by 10 in. hammer dressed whin kerbing, and 380 tons of 4 in. by 6 in. whin setts, for the T.C. W. Dunbar, Burgh Engineer.

NO DATE.—**Kilmarnock.**—PIPES.—780 lin. yds. of 4 in. and of about 310 lin. yds. of 5 in. spigot and socket greensand cast-iron pipes, for the T.C. W. Dunbar, Water Engineer.

ENGINEERING, IRON AND STEEL.

JANUARY 20.—**Langwith.**—TANKS, &c.—Construction of detritus and screening chambers, dortmund settlement tanks, storm and humus tanks, percolating filter beds, mud drying beds, and other incidental works on the disposal site, together with the laying and jointing of sewers, as follows:—17½ tons 12 in. C.I. pipe sewers, 900 lineal yards 12 in. stoneware pipe sewers, 2,300 lineal yards 9 in. stoneware pipe sewers, 80 lineal yards 6 in. stoneware pipe sewers; also the construction of manholes and other appurtenant works, for the Bolsover U.D.C., Blackwell and Worksop R.D.C. A. H. Elliott, Chartered Engineer, Engineer to the Blackwell Rural District Council, 8, Union-street, Mansfield. Deposit £5.

JANUARY 21.—**Inverness-shire (Culcabock District).**—WATER WORKS).—Construction of new water works for the Balloch-Croy extension, comprising the tracks and laying of about 20 miles of water piping from 3 in. to ¾ in. in diameter, together with concrete service rsservoir and cisterns, scours, sluice and air valves, and other relative materials and works, for the C.C. Geo. Gordon & Co., civil engineers, Inverness. Deposit £1.

JANUARY 22.—**West Riding.**—REPAIRS.—Repairs in masonry and concrete to the Doncaster and Hemsworth bridge, which carries the Doncaster and Selby main road over the River Went, for the C.C. Office of the West Riding Surveyor, County Hall, Wakefield Deposit £1.

JANUARY 25.—**London.**—GIRDERS.—For (*a*) about 4,425 tons of standard steel girder tramway track, &c., for the L.C.C. Chief Engineer of the Council, Old County Hall, Spring Gardens, S.W.1.

JANUARY 25.—**Seisdon.**—TANKS.—Construction of tanks and filters at the Upper Penn Sewage Works, and the provision and laying of stoneware and cast-iron sewers, varying in size from 6 in. to 18 in. diameter, and other appurtenant works, in the parish of Upper Penn, for the R.D.C. Berrington & Son, engineers, Prudential Chambers, Lichfield-street, Wolverhampton. Deposit £5 5s.

FEBRUARY 9.—**Smethwick.**—WIDENING.—Of Spon-lane bridge, and the reconstruction and widening of the bridge over the L.M.S. Railway's main line, and the widening of the bridge over the goods line in brickwork and steel, together with brick retaining and parapet walls, and all incidental works, for the C.B. R. Fletcher, Borough Engineer and Surveyor. Deposit £5 5s.

ROAD, SEWERAGE, AND WATER WORKS.

JANUARY 18.—**Chesterfield.**—STREETS.—Construction of new streets on the Highfield Hall estate, including the laying of sewer and surface water drains, with manholes and all other appurtenances, for the T.C. V. Smith, Borough Engineer and Surveyor, 2, Gluman Gate.

JANUARY 18.—**Fort-William.**—MAIN.—Laying a new 6 in. water main along High-street from the Alexandra Hotel to the West-End Hotel, for the T.C. T. D. Greig, Burgh Surveyor, Cameron-square.

JANUARY 18.—**Glasgow.**—SEWER.—A 6 and 9 in. pipe sewer in George-square, for the T.C. J. Lindsay, Town Clerk.

JANUARY 18.—**Plymouth.**—MAKING-UP.—Quarry Park-road-lane South, Winston-avenue-lane East, for the C.B. J. Wibberley, Borough Engineer and Surveyor.

JANUARY 18.—**Swanage.**—GROYNES.—Construction of two groynes on the beach, for the U.D.C. E. Latham, consulting engineer.

JANUARY 18.—**Whitley and Monkseaton.**—MAKING-UP.—Making-up and constructing Studley Gardens on the Marden estate, for the U.D.C. A. J. Rousell, A.M.Inst.C.E., Surveyor.

JANUARY 19.—**Tottenham.**—MAKING-UP.—Of Crawley-road, for the U.D.C. Engineer.

JANUARY 20.—**Edinburgh.**—DRAINAGE.—Drainage reconstruction work at Craiglockhart Poorhouse, for the P.C. J. M. Johnston, architect, 47, Charlotte-street, Leith.

JANUARY 20.—**Kingsclere.**—WIDENING.—Widening, resurfacing and general improvement of the Kingsclere-Newbury road (a length of approximately 3½ miles), including two small bridges, for the R.D.C. E. J. McKaig, engineer, Weston-super-Mare. Deposit £2 2s.

JANUARY 20.—**Rochdale.**—SEWER.—Construction of about 450 yards of 9 in. to 15 in. stoneware pipe sewer in Baillie-stteet, for the C.B. S. H. Morgan, Borough Engineer.

JANUARY 21.—**Kilmarnock.**—SEWERS.—For (*a*) laying of 1,094 lineal yards of water piping; (*b*) the supply and laying of 787 yards of fireclay sewers; (*c*) the excavation and bottoming of 4,426 square yards of roadway; and (*d*) other necessary works in connection with the schemes for the erection of further houses at Bonnyton and William-street, for the T.C. W. Dunbar, Burgh Surveyor, Market Bridge.

JANUARY 22.—**Folkestone.**—FENCING.—Supply of wrought and cast iron fencing and gates for new cemetery at Hawkinge, for the T.C. A. E. Nichols, Borough Engineer.

JANUARY 22.—**Inverness.**—RECONSTRUCTION.—Construction, reconstruction and surfacing Kinlochleven-Fort Augustus-road from Invergloy to Laggan Bridge, a length of approximately 8 miles, for the C.C. The Chief Engineer, 98–104, Academy-street. Deposit £3 3s.

JANUARY 23.—**Antrim.**—ROAD WORK.—Re-construction in reinforced concrete, re-surfacing in tarmacadam, re-surfacing in water-bound macadam, twice tar-sprayed, &c., for the C.C. D. Megaw, County Surveyor, County Courthouse, Belfast.

JANUARY 25.—**Middleton-in-Wharfedale.**—ASPHALTING.—Asphalting of footpaths at the sanatorium, near Ilkley, for the West Riding C.C. West Riding Architect, County Hall, Wakefield.

JANUARY 25.—**Monmouth.**—SURFACING.—A section of the Newport-Cardiff trunk road scheme, for the C.C. S. A. Bennett, County Surveyor, County Hall, Newport, Mon. Deposit £25.

JANUARY 26.—**Barnet.**—ROADS.—Construction of roads and sewers necessary in connection with the development of the Wellhouse estate. The work comprises approximately: 1,135 yds. lin. 9 in. soil sewers, 1,190½ yds. lin. 9 in. 21 in. S.W. sewers, 3,310 ft. lin. of roads varying in width from 36 ft. to 50 ft., for the U.D.C. E. Scott, Engineer and Surveyor. Deposit £3 3s.

JANUARY 26.—**Gosforth.**—SEWAGE.—Extension of the existing 12 in. sewage sewer in Haddrick's Mill-road, for the U.D.C. G. Nelson, Engineer and Surveyor.

JANUARY 26.—**Poole.**—REPAIRS.—Resurfacing Ashley-road and Poole-road (from View-road to County Gates) with asphalte macadam, including laying surface water drains, relaying kerb, &c., and street improvements connected, for the T.C. S. J. Newman, F.R.I.B.A., Borough Surveyor. Deposit £2.

JANUARY 27.—**Baildon.**—CONVERSION.—Of the w.c.'s at Tong Park Council school. E. H. Steel, Penny Bank Chambers, Shipley.

✱JANUARY 27.—**Berks.**—REPAIRS TO ROADS.—At Pinewood, Wokingham, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 27.—**Friern Barnet.**—WORKS.—Surfacing works—Oakleigh-road North (asphalt carpet); widening and reconstruction works—Oakleigh-road North; footway paving works—Colney Hatch-lane; footway paving and resurfacing of carriageway—Pembroke-road, for the U.D.C. F. P. Kindell, engineer and surveyor.

✱ JANUARY 27. — **London.** — WIDENING THE ENTRANCE.—At the Western Ambulance Station, Seagrave-road, Fulham, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 1s.

JANUARY 29. — **Hartlepool.** — RECONSTRUCTION. — Widening and reconstruction of road leading from Elwick to Naisberry-lane end, a length of approximately 1 mile, for the R.D.C. Road Surveyor, Union Offices, Hart-road, West Hartlepool. Deposit £2 2s.

JANUARY 29.—**Tadcaster.**—SEWERS.—Providing and laying about 1,225 yards of 9 in. and 542 yards of 6 in. earthenware sewers, with manholes and ventilating shafts, complete, for the R.D.C. H. M. Driver, Surveyor, Garforth, near Leeds.

JANUARY 30.—**Bangor.**—IMPROVEMENTS. — Street improvement works in the City, for the T.C. City Surveyor. Deposit £2.

JANUARY 30.—**Gosforth.**—SEWERS.—**For laying new sewers and formation of roadways to complete the lay-out of the Coxlodge housing site, for the U.D.C. G. Nelson, engineer and surveyor.**

JANUARY 31.—**Leyton.**—RECONSTRUCTION.—Of portions of Lea Bridge-road with reinforced concrete and granite sett paving, for the U.D.C. A. P. Howell, Engineer. Deposit £10.

FEBRUARY 2.—**Tregaron.** — EMBANKMENT. — Construction of embankment, mains, distribution, and other works in connection with the proposed water supply for the R.D.C. B. Idris Evans, Clerk.

FEBRUARY 3. — **Headington.** — DRAINAGE. — Main drainage of Headington Quarry and Littlemore, for the R.D.C. Howard Humphreys & Sons, Consulting Engineers, 28, Victoria-street, Westminster. Deposit £3 3s.

FEBRUARY 5.—**Shardlow.**—PIPES.—Water supply for the parishes of Ockbrook, Draycott, Breaston, Elvaston, Chellaston, Shardlow and Aston-on-Trent. The contract will comprise about 1,330 tons of iron castings as follows: 226 tons of 9 in., 133 tons of 8 in., 207 tons of 7 in., 65 tons of 6 in., 20 tons of 5 in., 288 tons of 4 in., and 362 tons of 3 in. diameter pipes, also 29 tons of special castings, for the R.D.C. Elliott & Brown, Chartered Civil Engineers, Burton Buildings, Parliament-street, Nottingham. Deposit £5 5s.

FEBRUARY 5.—**Shardlow.**—WATER SUPPLY.—For the parishes of Ockbrook, Draycott, Breaston, Elvaston, Chellaston, Shardlow and Aston-on-Trent. The contract comprises the laying of 2,755 yds. of 9 in. cast-iron pipes, 1,913 yds. of 8 in., 3,648 yds. of 7 in., 1,434 yds. of 6 in., 575 yds. of 5 in., 11,424 yds. of 4 in., and 18,892 yds. of 3 in. cast-iron pipes, with all appurtenances, and the construction of a concrete reservoir, for the R.D.C. Elliott & Brown, Chartered Civil Engineers, Burton Buildings, Parliament-street, Nottingham. Deposit £5 5s.

NO DATE.—**Island of Mull.**—FENCING.—Two and three miles of corriemony fence between the estates of Benmore and Lochbute. D. M. MacKinnon & Co., solicitors, Oban.

Competitions.

See Competition News page 103.)

Auction Sales, Tenders, etc.

JANUARY 21.—**Dover.**—Worsfold & Hayward will sell, in conjunction with S. Hinds & Son (unless previously disposed of by private treaty), in one lot, the freehold industrial property upon the main line of the Southern Railway, formerly known as the Stonehall Colliery. Auctioneers, W. & H. Dover, S. Hind & Son, Walmer.

✱JANUARY 25.—**Newmarket.**—Woodward & Woodward will sell, on the site, Cheveley Mansion, two miles from Newmarket, large quantity of building material arising from the demolition of the mansion. Auctioneers, Station-road, Stowmarket.

✱JANUARY 26. — **London.** — Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W., stock of timber fittings and building materials. Auctioneers, 365, Norwood-road, S.E.27.

✱JANUARY 27.—**Foots Cray, Kent.**—Veryard & Yates will sell, without reserve (near "Black Horse," Sidcup), at Mr. Readhead's Farm, Mount Culver, useful timber and building materials. Auctioneers, 365, Norwood-road, S.E.27.

JANUARY 28.—**Eltham.**—F. H. Clark will sell, without reserve, at Mars-avenue, Well Hall-road, S.E., timber and building materials, &c., recovered from demolition of Admiralty temporary buildings, Whitehall. Auctioneer, Mars-avenue, Well Hall-road, Eltham, Kent.

✱JANUARY 28. — **London.** — Henry Butcher & Co. will sell by order of the Receiver, Joseph Stephenson, Esq., O.B.E., at the London Auction Mart, 155, Queen Victoria-street, E.C.4, the beneficial interest in the lease of the land and buildings known as The Standard Concrete Machine Works, Northfleet, together with plant, machinery and equipment. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

✱JANUARY 28. — **London.** — Veryard & Yates will sell, without reserve, by order of Metropolitan Asylums Board, owing to completion of Tooting Bec Hospital extension, Tooting, S.W.17, surplus builders' plant and fittings, useful ironmongery, Petter engines, &c. Auctioneers, 365, Norwood-road, S.E.27.

JANUARY 29.—**Essex.**—Fuller, Horsey, Sons & Cassell will sell, in lots, on the premises, at the Manor Brick and Tile Works, New Thundersley, near Benfleet, by order of the Administrator, brick and tile plant, also materials of the buildings. Auctioneers, 11, Billiter-square, E.C.3.

✱FEBRUARY 23. — **London.** — Hampton & Sons will sell (in conjunction with G. E. Sworder & Sons), at the St. James' Estate Rooms, 20, St. James'-square, S.W. 1 (unless previously sold), in one or five lots, freehold residental property known as "Westfield House," Bishops Stortford, with vacant possession, together with building land. Auctioneers. 20, St. James'-square, S.W. 1.

✱NO DATE.—**Weybridge.**—Building materials now comprising a large house known as Broadwater House, Oatlands, Weybridge. Particulars of sale, Godfrey Lambert & Co., F.S.I., architects, 8, Henrietta-street, W.C.2.

Public Appointments.

JANUARY 18.—**Dublin.**—Architect wanted for City Architect's Department of the Corporation. Housing Department, Lord Edward-street.

JANUARY 18.—**Newport.**—Architectural Assistant required by the County Borough Council. C. F. Ward, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon.

JANUARY 18.—**Walsall.**—Assistant Building Inspector in the Borough Engineer and Surveyor's Department required by the County B.C. J. Taylor, M.Inst.C.E., Borough Engineer and Surveyor, Council House.

JANUARY 20.—**Chelmsford.**—Assistant for the Quantity Surveyor's Office on the temporary staff required by the Essex County Council. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford.

✱JANUARY 20.—**Stafford.**—SURVEYING ASSISTANTS. —Four temporary surveying assistants at various salaries required by the County Council. James Moncur, M.Inst.C.E., County Surveyor, Stafford.

✱JANUARY 25.—**Barking.**—Clerk of Works required for the proposed Central School in their district, for 640 children, by the Barking Education Committee. J. Compton, Director of Education, Education Offices, Barking, Essex.

FEBRUARY 1.—**Yeovil.**—Clerk of Works to superintend the erection of new municipal offices, public library, and museum, at Yeovil, required by the B.C. Town Clerk.

FEBRUARY 10. — **Battersea.** — Superintendent of Building Works required to work under the Borough Engineer and Surveyor, by the Borough Council. Borough Surveyor, Town Hall.

✱NO DATE.—**At Home and Abroad.**—EXPERIENCED CLERKS OF WORKS (General and Steelwork).—Unestablished Government appointments for ex-service men. Joint Substitution Board, Montagu House, Whitehall, S.W. 1.

✱NO DATE. — **Derby.** — Architectural Assistant required by the Derbyshire County Council for extensions at the Mickleover County Mental Hospital. George H. Widdows, F.R.I.B.A., County Offices, St. Mary's Gate.

✱NO DATE.—**Nyasaland.**—INSPECTOR OF WORKS.—Required by the Government of Nyasaland, for the Public Works Department, for a tour of 20-30 months' service. Crown Agents for the Colonies, 4, Millbank, Westminster, S.W.1, quoting M–14255.

Wiring Rules.

We have received from the Secretary of the Fire Offices' Committee a copy of a letter which is being circulated amongst electricity supply companies and authorities, consulting and installing engineers and contractors carrying on electrical work, and architects. It indicates that the Fire Offices associated with this Committee give formal approval to the Institution's Wiring Rules as set out in the edition dated June, 1924, of their Regulations for the Electrical Equipment of Buildings.

THE LIGHT CASTINGS INDUSTRY

AT a meeting of the Committee on Industry and Trade, held on Thursday, January 7, evidence was submitted by the National Light Castings Association, represented by Mr. John King, President of the Association, and Mr. Scotland and Mr. Wallace, members of the Executive. The witnesses explained that the home of the Light Castings Industry lies in Falkirk, although there were light castings foundries situated in various other parts of the country.

It was stated that relationships between members of the Light Castings Federation and the various trade unions whose members they employ were on an eminently satisfactory basis. There were agreements covering practically every category of worker, and establishing a basis of remuneration to the workers, which bears more than favourable comparison with that of wages paid in other competitive industries of an analogous class in this country. The witnesses took no exception to the efficiency and industry of the workers, nor was it sought to advance that there was undue restriction of output. Reference was, however, made to the fact that the inelastic nature of Trade Union rules and regulations occasionally gave rise to friction on the matter of the number of apprentices admitted to the trade in its various categories, and also, in certain cases only, in regard to the working of overtime. The witnesses did not allege that there was any serious lack in the adequacy of the labour supply, except in one instance, viz.: that of grinders, although it was suggested that if allied trades throughout the country became busy, the statement as to the adequacy of the labour supply might have to be qualified.

Reference was also made to the conditions of labour and wage rates in Continental countries from which competition was being experienced, the witnesses contending how substantially in favour of the foreign manufacturer were the labour and wage conditions in these countries.

The activities of the Association in the direction of the standardisation of costs in the industry were explained, it being pointed out that the Association had a special department for dealing with this matter, and that such department, in addition to keeping statistics relating to fluctuations in details of cost, was also available for advising on the installation of costing systems in members' foundries on the lines recommended by the Association.

Tables were submitted showing comparisons between freight rates to overseas markets in 1914 and at the present day, and also between the freight rates in operation at present between Continental ports and overseas countries on the one hand and between our home ports and such overseas countries on the other hand, a decided difference in the rates being shown in favour of the Continental producer. The tables also showed the increase over pre-war of the rates from Falkirk to various ports of shipment; and the witnesses felt that, if anything could be done to reduce these charges to a pre-war level, it would have a highly beneficial effect on the export trade.

With regard to the present position and prospects of the industry, it was explained that whilst the improvement in sanitary conditions abroad is creating an increasing demand for light castings, the competition from Continental competitors is becoming increasingly severe, the manufacturing conditions obtaining in these countries, and the rates of exchange, enabling them to sell at prices with which the British manufacturer cannot compete.

With reference to the Home market, it was stated that whilst there was a considerable demand for light castings for housing schemes, the benefits of this demand were nullified by the low prices being obtained for these goods. In addition, foreign competition in this direction was increasing, so that the present activity in the industry was misleading. With a view to meeting foreign competition, the light castings ironfounders were investigating and experimenting with every new method of production brought out.

PROPOSED NEW BUILDINGS & OTHER WORKS*.

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board.

ACCRINGTON.—The old Court Room in Manchester-road is to be converted into garages.

BACUP.—The Housing Committee propose to erect 100 houses on the Lane Ends estate.

BARNSLEY.—Tenders have been let for the general scheme of the Beckett Hospital extensions, amounting to £21,729 11s. 4d. Mr. C. F. Moxon, of Barnsley, is the architect.

BATH.—The City Engineer estimates the cost of alterations to the Blue Coat School at £4,500.

BIRMINGHAM.—The Gas Committee propose an expenditure of £275,000 upon new mains and meters. The Tramways Committee are to purchase new rolling-stock, for which purpose a new depot is to be constructed at Selly Oak, at a cost of £51,000.

BLACKBURN.—The R.D.C. propose to erect a mortuary to serve the north-east district of the Council's area. The Surveyor is instructed to prepare plans.

BOLTON.—The E.C. has revised the plans of the proposed open-air school to be erected at Lostock. Plans have been approved for improvements at St. Edmund's School, Eastbourne-grove. The Tramways Committee are arranging for the erection of shelters and conveniences at various tramway points. A convenience is to be constructed at the corner of Nelson-street and Lever-street. A site in the Bradford ward is to be obtained for the erection of public washhouses.

BOURNEMOUTH.—Many sea-front improvements have been authorised by the B.C. Nearly fifty additional bungalows are to be erected on the cliffs and undercliff drive. It is proposed to construct diving platforms for bathers. Beach refreshment rooms are to be extended.—The Beach Committee has submitted a scheme for the extension of the Undercliff Promenade westwards from the end of the present promenade to Alum Chine, at an estimated cost of £56,000.

BRADFORD.—The Housing, Baths, and Libraries Committees are conferring with reference to the provision of combined baths and library premises on sites at Bradford Moor, Bierley, Lower Grange and Five-lane Ends. The City Engineer has prepared plans for the development of the Clock House estate, provision being made for a site for new Grammar School buildings. Repairs are to be undertaken at the Thornbury car depot, at a cost of £2,430. Tramway tracks are to be reconstructed at a cost of £51,000. The City Architect is to prepare fresh plans for the provision of additional accommodation for 700 patients at the Westwood Mental Hospital estate. The Corporation are to erect new bank premises in St. James' Market for the Midland Bank, Ltd., at a cost of £1,650. The E.C. are purchasing 16 acres at Leaventhorpe-lane, Thornton, for the erection of a Grammar School. The Unemployment Grants Committee have approved the proposal for the construction of a by-pass road at Wyke, at a cost of £50,000.

BURTON-ON-TRENT.—Sanction has been given by the M.H. to the Corporation scheme for the erection of 94 houses on the High Bank estate and 16 houses on the Stepenhill estate. The M.T. has promised to make a grant for widening Ashby-road, which is to cost £38,270.

BUSHEY.—Structural additions to cost about £20,000 are to be made to the Royal Caledonian Schools.

BUXTON.—The B.C. has approved the recommendation of the Housing Committee to accept tenders for the erection of 20 parlour type houses and 20 non-parlour type houses at the Heath Grove site, and to apply to the M.H. for permission to borrow £25,000 to defray the cost.

CHELMSFORD.—The R.D.C. has agreed, on the motion of the Housing Committee, to apply to the M.H. for sanction to erect a further 18 houses.

CHESTERFIELD.—Land in Bootwell-street is being purchased for a re-housing scheme. The Housing Committee has decided to organise a competition, open to architects and surveyors, for the lay-out of the Tapton estate. Approval has been given to the elevation of the new buildings to be erected in Vicar-lane by J. Turner, Ltd. Messrs. W. C. Jackson & W. A. Derbyshire have been asked to prepare plans for 67 houses to be erected on the St. Augustine's estate.

COVENTRY.—Plans for the lay-out of the Rock-lane estate have been prepared by T. D. Griffiths for 300 houses and a further 500.

DAGENHAM.—It is proposed to provide a new Roman Catholic school for 300 children at Goresbrook-road.

DARLASTON.—The U.D.C. estimated the cost of the erection of 64 houses on the Rough Hay site at £28,564. The Council has decided to make application to the M.H. for sanction to borrow the money.

DERBY.—The Parks and Baths Committee recommend the T.C. to construct a paddling pool, at a cost of £7,000—Messrs. Eastwood & Swingler have accepted the offer of the Corporation of £250 per acre for 14 acres of land adjoining Cotton-lane for housing purposes.

DONCASTER.—The T.C. has decided to apply for permission to borrow £45,000 for works, mains and extensions in connection with the gas undertaking.

EASTBOURNE.—The Council are to consider the desirability of providing a crematorium.

EXMOUTH.—The U.D.C. recommend that application be made to the M.H. for sanction to borrow a further sum of £1,636, for the erection of 50 houses at Upper Marpool Park.

FRIERN BARNET.—The U.D.C. recommend that application be made to the M.H. for sanction to borrow £53,810 for the erection of houses.

GLASGOW.—The Rev. P. Lunro is negotiating for a site in Partick for the erection of a church. A committee are to report as to the construction of a bridge over the River Clyde at Dixon-street.

GUILDFORD.—The Southern Railway Co. are inquiring from the Corporation as to a site for the erection of houses for railwaymen.—The Borough Engineer is to prepare estimates for repairs at the markets.—Onslow Village, Ltd., propose to erect a further 34 houses in Elmside and 18 in Litchfield-way.

HALIFAX.—Plans have been prepared for the erection of 100 houses by G. Wilson, Club-lane, Ovenden.

HULL.—The T.C. has passed plans for G. S. Williamson, 16 parlour type houses, North-road; G. T. Mainprize, 12 parlour type houses, North-road; A. Pickering, 12 parlour type houses, North road.

ILKESTON.—Miss Lewis intends to erect a new non-provided school. The M.H. has approved the proposal of the Corporation for the erection of 68 houses on the southern site.

LEEDS.—The M.H. has sanctioned the borrowing of £10,865 for provision of public washhouse and slipper baths at Stocks-hill, Holbeck, and £14,940 for erection of houses on the Cross Gates housing estate.

LIVERPOOL.—The Mersey Dock Board proposes to spend £29,000 in providing new accommodation for passengers at Liverpool landing-stage.

LONDON (BERMONDSEY).—In the Salisbury-street improvement scheme, the Council is to build fifteen permanent houses at £7,000 and nineteen temporary ones at £4,750.

LONDON (HACKNEY).—The B.C. recommend that application be made to the Electricity Commissioners for sanction to the borrowing of £2,500 for a site for a sub-station at Holly-street, and for £3,000 for a site for a sub-station at Gainsborough-road.

MANCHESTER.—The Finance Committee has given approval to certain proposals of the E.C. to apply for borrowing powers to enlarge the site of a municipal elementary school in Ravensbury-street, Clayton; to erect and equip a technical school in Hague-street, Newton Heath; to replace the unsuitable and inadequate premises in the Newton Heath Town Hall, and to erect and equip a school clinic in Newton Heath to take the place of the present temporary one in the Lancasterian School for Crippled Children in Oldham-road. The total cost of the proposals amounts to £51,468.—The Baths and Washhouses Committee are to seek permission to borrow £34,500 for the erection of swimming, wash, and Turkish baths in Manchester-road, Chorlton-cum-Hardy, at a cost of £34,500. —The Tramways Committee are to erect and equip a depot at Birch Fields-road, at a cost of £180,000.—Sanction is to be sought for a loan of £320,000 for the purchase of motor 'buses and various works in connection therewith.—Extensions are to be made at the Goulden-street police station, at a cost of £2,800.—Premises in Rosamond-street West are to be adapted as a child welfare centre, at a cost of £600.—Additional bedrooms are to be provided at the Baguley Sanatorium, at a cost of £200.—The Watch Committee has approved revised plans for the new Park-place police and fire station.—The E.C. are considering the provision of additional accommodation at the Plymouth-grove and the Gorton Aspinal municipal schools.

MARGATE.—A representative committee has been formed with the object of raising £50,000 for the building of a new hospital.

MERTHYR.—Mr. F. Thackeray, the Borough Architect, has prepared plans for 60 houses on the Aberfan estate, and tenders are to be invited. The Local War Memorial Committee are to be invited to co-operate in the scheme for the erection of a central library.

MITCHAM.—In connection with the building of 208 houses on Swain's Farm site, tenders received arranged from £111,866 to £162,277.

NEWCASTLE.—An important housing development has been decided upon by the Housing Committee, comprising the erection of a further 1,500 houses during 1926.

OLDHAM.—The Borough Engineer has prepared plans for 202 houses on the Barrowshaw site and 100 on the Greenacres site.—A new scheme is to be prepared for a maternity hospital, including if possible accommodation for a children's hospital.—Building plans for the new generating station have been approved by the Chadderton U.D.C.

PORTSMOUTH.—Offers are being made for land required for the proposed spur road at Cosham.—Plans have now been prepared for the erection of a maternity hospital and child welfare centre in Fratton-road at a cost of £12,000. Plans passed: Eleven houses, Neville-road, Wedge & Foley; 20 houses, Mayles-road, J. May; 10 houses, Chesterfield-road, H. J. Fifield; 22 houses, Stubbington-avenue, E. Wright; 11 houses, Cobden-avenue, H. E. Pitt; 60 houses off Havant-road, Cosham, D. Gammans and G. Coffin; 12 houses, Ripley-grove, T. L. Norman & Son.

READING.—The C.B. is to make application for sanction to the borrowing of £3,500 for additions and alterations to the "Dellwood" Maternity Home.

RHYL.—The Housing Committee of the Council has decided on the erection of another fifty houses on the Council estate.

ROTHERHAM.—The M.H. has forwarded the formal sanction to the borrowing by the R.D.C. of £27,127 for the erection of 57 houses at Brampton Bierlow.

SEDGEFIELD.—The R.D.C. has received sanction from the M.H. to erect houses: Ferryhill, 30; Chilton, 20; Cornforth and Thrislington, 20; Trimdon, 20, and Fishburn, 10.

SHREWSBURY.—The Corporation has appointed A. B. Deakin as architect to prepare a scheme for a new engine room at the generating station, at an estimated cost of £4,570.

STALYBRIDGE.—The B.E. has approved plans for the proposed school at West Hill.

STOCKTON.—The T.C. has received sanction to the borrowing of £105,930 for the erection of a further 250 houses upon the Blue Hall estate at Norton, and the Council also approved that Mr. H. M. Nowell's existing contract should be extended to cover this scheme, being 200 parlour houses at £435 8s. each, and 50 kitchen houses at £377 each.—The T.C. has decided to apply for sanction to borrow £2,567 for the purchase of the Mount Pleasant estate, for building purposes.

SUTTON COLDFIELD.—The T.C. has approved of a scheme for the improvement of electric supply, and decided to take the necessary steps to obtain the sanction of the Electricity Commissioners to proceed with the work and to borrow a sum of £28,650 required for the scheme.

TORQUAY.—It is being urged that the Corporation should improve the Pavilion in order to make it into a winter garden and rendezvous. The conveniences at Oddicombe Beach are to be reconstructed at a cost of £1,500. Lay-out plans have been approved for Stoodley Knowle meadow, provision being made for hockey, football and other sports. Plans have been prepared for the construction of central stores adjoining the destructor at a cost of £4,000. Thirty-six acres at Barton are to be acquired for the erection of about 200 houses.

TRENT BRIDGE.—The Notts County Cricket Club has decided to carry out improvements at Trent Bridge that will cost between £4,000 and £5,000. The improvements include the erection of two new stands and the provision of a new turnstile entrance at the Trent Bridge end of the ground.

WAKEFIELD.—Further efforts are to be made to obtain a site for the proposed joint sanatorium and infectious diseases hospital. Land at Batley-road is to be used for a housing scheme. The Housing Architect has prepared a lay-out for the erection of 145 houses at Alverthorpe.—The City Council are to consider a scheme for the provision of a new market hall.

WANSTEAD.—The Essex E.C has obtained sanction to borrow £38,882 for the erection of a high school.

WATFORD.—The Corporation are in negotiation for the acquisition of the Watford Market franchise, and propose the acquisition of the "Red Lion" yard site for a new market.—Land at Gammons Farm is shortly to be used for housing.—Fresh tenders are to be invited for the erection of 26 houses on the Wiggenhall estate.—The Borough Engineer has prepared amended plans for the erection of 124 houses at Harebreaks.—A committee are considering sites in the town for the erection of conveniences.—Land is being acquired in connection with the proposed North arterial road.—The Borough Engineer has prepared amended plans for a pavilion and convenience in the park.

WEST BROMWICH.—The T.C. recommend that application be made to the M.H. for sanction to borrow £87,000 for the erection of 206 houses on the Charlemont estate.

WEST THURROCK.—The Essex C.C. has purchased a site at West Thurrock for the erection of a police station.

WHITEHAVEN.—The Corporation are considering a proposal for the establishment of a public slaughter-house.

WHITWOOD.—The Architect to the County E.C. has prepared plans for the extensions to the Ashton-road school, also for a new house for the caretaker.

WILLESDEN.—Middlesex E.C. has obtained sanction to borrow £9,900 for the purchase of a site for the erection of a secondary school and land for an extension of the playing fields of the Kilburn Grammar School.

WIMBLEDON.—An inquiry has been held by the M.H. into an application of the T.C. to borrow £10,000 for the provision of 20 hard lawn tennis courts and buildings in Home Park Field, Wimbledon Park.

WOKING.—The U.D.C. are asking the C.C. to construct a new bridge to replace Mayford Bridge. Plans for the reconstruction of Arthur's Bridge over the canal have been submitted to the M.T.—Land at Knaphill is to be obtained for the erection of houses.

WORTHING.—Rapid progress is being made by Sandell & Sons with the erection of the new pavilion. The Corporation has adopted a scheme for a handsome approach to the pier pavilion, to cost £4,000.

YIEWSLEY.—A new Wesleyan Church is to be erected at a cost of about £11,000, accommodating some 500 worshippers. Messrs. Gilder & Kitchen, 120, Alfred Gelder-street, Hull, have prepared the plans.

YORK.—The Corporation has arranged terms with the Derwent Valley Light Railway Co. for the construction of a bridge across the railway on the Tang Hall estate.—The City Engineer has prepared plans for a ward with 24 beds at the Failfield Institution.—The co-operation of the West Riding C.C. is to be sought for the establishment of a new welfare centre. —The E.C. has approved the design of a new elementary school to be erected on the Tang Hall housing estate.

FIRES.

BELMONT.—A fire at the Belmont Institute, a workhouse controlled by the Fulham B.G., is estimated to have caused £15,000 damage

LONDON (CITY).—A fire, which assumed serious proportions, broke out recently in a seven-floored warehouse in Sun-court, a narrow thoroughfare connecting Red Lion Market, which opens out of Whitecross-street, with Golden-lane.

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.

Best Stocks 4 3 6
Second Hard Stocks 3 18 6

Per 1,000. Delivered at London Goods Stations.

Flettons, at £ s. d.
King's Cross 2 18 3
Do. grooved for Plaster 2 15 3
Do. Bullnose .. 3 8 3
Best Stourbridge Fire Brick :—
2½ in. 8 11 0
3 in. 10 3 0

Best Blue £ s. d.
Pressed Staffs 9 5 0
Do. Bullnose .. 9 15 0
Blue Wire Cuts 7 5 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers .. 21 10 0
Headers 21 0 0
Quoins, Bullnose and 4½ in. Flats 28 0 0

D'ble Str'tch'rs 30 0 0
D'ble Headers 27 0 0
One Side and two ends 31 0 0
Two Sides and one End 32 0 0
Splays and Squints 29 10 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. " "	2 4	4 in. " "	3 6

	s. d.	
Thames Ballast	10 6	per yd.
Pit Sand	13 9	" "
Thames Sand	14 6	" "
Best Washed Sand	14 6	" "
½ in. Shingle for Ferro-Concrete	12 9	" "
¾ in. " "	14 0	" "
¾ in. Broken Brick	11 6	" "
Pan Breeze	7 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £2 18 0 to £3 3 6
51s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above		0	10 0
Super Cement (Waterproof)		4	8 0
Roman Cement		8	15 0
Parian Cement		5	15 0
Keene's Cement, White		5	15 0
" Pink		5	10 0
Plaster, Coarse, Pink		3	0
" " White		3	12 6
" Fine		5	12 0
Sirapite, Coarse		3	9 0
" Finish		3	17 0
Grey Stone Lime		2	11 9
Chalk Lime		2	11 9
Best Ground Blue Lias Lime		2	4 6
Hair		32	0 0
Granite Chippings		1	12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube....	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube.....	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube.....	4 4
Do. do delivered on road wagons at above stations, per ft. cube.....	4 5
White basebed, 3d. per ft. cube extra. NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— Delivered at any Goods Station, London.	s. d.
Small random blocks, up to 10 ft. cube. P. ft. cb.	7 0
Random blocks from 10 ft. and over "	17 0
Sawn two sides..... "	27 0
Sawn three or four sides..... "	32 0
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per ft. super	5 6
6 in. rubbed two sides, ditto..... "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... "	1 6½
1½ in. to 2 in. ditto, ditto..... "	1 4
HARD YORK— Delivered at any Goods Station, London.	
Scappled random blocks ..... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super	5 1½
6 in. rubbed two sides, ditto ..... "	6 1½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto ditto "	2 1½
2 in. self-faced random flags.... Per yd. super	9 0

ARTIFICIAL STONE.

Delivered in London Area in full van loads, per ft. cube :—Plain, 8s. 6d. ; Moulded, 9s. 6d. Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£28 0	3 × 6	£21 0
4 × 9	25 0	3 × 11	25 0
4 × 8	24 0	2 × 11	25 0
4 × 7	23 0	3 × 9	24 0
3 × 8	21 0	2½ × 9	23 0
3 × 7	20 0	3 × 4½	22 0
2½ × 7	20 0	3 × 4	22 0

PLANED BOARDS.

1 × 11	£27 0	1 × 9	£26 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	20/-	1¼	31/-
¾	22/-	1½	34/-
1	25/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.	Inches.	per sq.
1	25/-	⅝	16/6
1¼	31/-	¾	19/-
1½	34/-	1	24/-

MATCHING (BEST).

Inches. BATTENS. s. d.
¾ × 2 ..... 2 6 per 100 ft.

SAWN LATHS.

Per bundle 0 2 4

1" AND UP THICK.

	£ s. d.		£ s. d.
Dry Austrian Wainscoat, per ft. cube	0 16 0 to 0 18 0		
Dry American and /or Japanese Figured Oak, ft. cube	0 15 0 to —		
Dry American and/or Japanese Plain Oak, ft. cube	0 11 0 to 0 13 0		
Dry sq. edged Honduras Mahogany, ft. cube	0 16 0 to 0 18 0		
Dry Log cut Honduras Mahogany, ft. cube	0 18 0 to 1 1 0		
Dry Cuba Mahogany, ft. cube..	1 4 0 to 1 10 0		
Dry Teak, ft. cube	0 13 0 to 0 15 0		
Dry American Whitewood, ft. cube	0 11 0 to 0 14 0		
Best Scotch glue, per cwt.	4 10 0 to —		
Liquid Glue, per cwt.	4 7 0 to 5 10 0		

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station.

Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
{ Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
" Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
⅜ in.	12 0 0	⅜ in. to ½ in ..	10 15 0
½ in.	11 0 0	⅝ in. to 2½ in...	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Black Gas	60 % ..	50% ..	60%
Galvanised Gas	45 % ..	40% ..	50%
Blue Water	55 % ..	45% ..	55%
Galvanised Water	38½% ..	35% ..	45%
Red Steam	50 % ..	40% ..	50%
Galvanised Steam	32½% ..	30% ..	40%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/2½	11½d.	3½d.
3½ in.	1/4	1/0½	3½d.
4 in.	1/5	1/2½	3½d.
4½ in.	1/6½	1/4	4½d.
5 in.	1/9½	1/5½	5½d.

O.G. GUTTERS.

3 in.	1/7	1/3½	3½d.
3½ in.	1/7	1/3½	3½d.
4 in.	1/8½	1/4	3½d.
4½ in.	1/10½	1/6½	4½d.
5 in.	2/3	1/9½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/9½	1/2½	1/8½
2½ in. "	1/11½	1/4	2/0½
3 in. "	2/4½	1/8	2/6
3½ in. "	2/10	2/-	2/10½
4 in. "	3/3	2/4½	3/6

L.C.C. COATED SOIL PIPES—London Prices, ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts. plain	2 11 ..	2 3 ..	2 9
2½ in. "	3 5 ..	2 6 ..	3 5
3 in. "	4 1 ..	2 9 ..	4 0½
3½ in. "	4 5½ ..	3 5 ..	4 8½
4 in. "	4 11½ ..	3 9½ ..	5 5½

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe.	Bends, stocks angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 3 ..	5 9 ..	7 8
4 in. " "	6 3 ..	8 11 ..	9 6
5 in. " "	7 10 ..	12 0 ..	16 3
6 in. " "	9 6 ..	15 0 ..	20 9

Gaskets for jointing, 38/6 per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 0 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 5 0	..	15 5 0
Staffordshire "Marked Bars	16 5 0	..	17 5 0
Mild Steel Bars.....	10 0 0	..	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	..	11 0 0
Hoop iron, basis price	12 0 0	..	13 0 0
" Galvanised	27 0 0	..	28 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g..	13 5 0	..	14 5 0
" " " 24 g..	14 5 0	..	15 5 0
" " " 26 g..	16 5 0	..	17 5 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. ..	15 10 0	..	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	16 10 0	..	17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g. ..	18 10 0	..	20 10 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.....	18 10 0	..	19 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	19 0 0	..	20 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.....	22 0 0	..	23 0 0
Sheets Galvanised Flat. Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker....	22 0 0	..	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.....	24 0 0	..	26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0	..	26 10 0
Cut Nails, 3 in. to 6 in...	19 0 0	..	20 0 0

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up.....	47 10 0
Pipe in coils	49 0 0
Soil Pipe.....	51 0 0
Compo Pipe	52 0 0

NOTE—Country delivery, 30s. per ton extra ; lots under 3 cwt., 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	32 10 0	—
Do., ex country, carriage forward ..... per ton	33 10 0	—

COPPER.

		s. d.
Seamless Copper tubes (basis).....	per lb.	1 1
Strong sheet.....	"	2 3
Thin	"	2 4
Copper nails.....	"	2 3
Copper wire	"	2 4

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62*-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1½ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps ..	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps ..	35/-	45/-	66/-	126/- "

TIN—English Ingots, 2/9 per lb. SOLDER—Plumbers' 1/2, Tinmen's 1/5, Blowpipe 1/6 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in pipes .... per gallon		0 3 2
" " " in barrels.... "		0 3 4
" " " in drums.... "		0 3 7
Boiled " " in barrels.... "		0 3 7
" " " in drums .... "		0 3 10
Turpentine in barrels ..... "		0 5 11
" in drums (10 gall.). "		0 6 1
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		56 15 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Special," "Polacco," and other best brands (in 14 lb. tins) not less than 5 cwt. lots..... per ton delivered		77 15 0
Red Lead, Dry (packages extra).. per ton		53 10 0
Best Linseed Oil Putty..... per cwt.		0 15 0
Filocol ..... "		0 15 6
Size. XD Quality..... fkn.		0 3 6

Continued on next page.

*The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	8d.
15 „ thirds	4½d.	32 „ thirds	9½d.
21 „ fourths ..	4 d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	5½d.	„ „ 21 „	5½d.
26 „ fourths ..	5½d.	Fluted 15oz. 6½d., 21oz. 9½d.	
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
⅛ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White..	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £ s. d.
Oak Varnish.....	Outside	0 14 0
Fine ditto.....	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto.....	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak.....	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 6
Best Black Japan		0 10 6
Oak and Mahogany Stain (water).....		0 12 0
Brunswick Black.....		0 7 6
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish.....		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Bernhardt Statue.

The statue of Sarah Bernhardt, erected in the Place Malesherbes, Paris, will be unveiled during March.

Painters' International Travelling Scholarship.

We have received particulars of an International Travelling Scholarship for apprentices who have completed or are in course of completing the terms of their apprenticeship with members of the National Federation of Master Painters of England, Wales, and Scotland, and the National Association of Master Painters in Ireland. The value of the Scholarship is £50, or such other sum as the Committee may determine, and which shall be expended by the holder in visiting and residing in cities either at home or abroad, and producing and handing over to the Committee drawings and coloured sketches of decorative work. Particulars may be had on application to Mr. Will Mellor, Secretary, 9, Albert-square, Manchester.

A New Fuel Economy Institution.

A new institution has been formed to deal in a scientific manner with the problem of preparing and utilising our fuel resources with much greater efficiency. This new organisation is called The Institution of Fuel Economy Engineers, which has been inaugurated at a meeting of experts at the Engineers' Club, London. Among those taking part in the proceedings were Dr. T. Barratt, Professor Bacon, W. C. Goodchild, representing Sir Henry Fowler, Dr. R. Lessing, E. W. L. Nicol, John Bruce, S. W. Bettoney, J. S. Gander, and A. C. Mahar. The first council was elected, and it was decided to form sections in different parts of the country. The ideal behind this new Institution is that it shall be the responsible organisation representing every section of fuel technology throughout the country, and shall be able to speak with authority on each of our fuel problems. The Secretary is Mr. H. L. Pirie, and the registered office of the Institution is 29, Sherwin-road, Lenton, Nottingham, pending the opening of London headquarters.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND

Edinburgh.—BUILDINGS.—The Dean of Guild Court passed plans: Education Authority, Balfour-place School, Leith, additions; Fordel Mains (Midlothian) Colliery Co., Ltd., Gilmerton cottages; David Rae, Liberton Car Terminus, six double villas; the Corporation, Assembly-street, Leith, electricity sub-station; G. Mackie, 92, Restairig-road, Leith, 22 garages.

Perth.—ACADEMY.—The Perthshire E.C. have authorised the signing of an order for the compulsory acquisition of ground at Viewlands for the erection of a new academy.

Rothesay.—MUSEUM.—Plans have been passed for a museum in Stuart-street, at an estimated cost of £3,000.

Dundee.—HOUSES.—It is probable that a portion of the Craigiebank site, at the east end of the city, will be secured for the erection of Dundee's share of the allocation of the 2,000 houses which the Government have decided to build. The number expected is about 150

Glasgow.—VARIOUS.—The Corporation architect has been authorised to arrange the reseating of the Council Hall at a cost of £2,000.—A company has been formed to erect in the heart of the city a big motor garage capable of holding 80 cars.—Several alterations and improvements are in contemplation in connection with the Municipal Buildings, Glasgow. The Committee in charge of the civic headquarters have recommended acceptance of tenders totalling £5,634 for the erection of a lavatory and cloakroom block within the quadrangle of the old buildings.—With the object of inspecting likely sites for the erection of houses under the Government scheme, representatives of the Scottish Board of Health and the Scottish National Housing Co. have visited Glasgow.

Musselburgh.—HOUSES.—The Town Council has decided to erect 48 houses of three apartments each.

Clyde.—EXTENSION.—The Clyde Trust has approved a recommendation to lengthen the new No. 1 Shieldhall Dock. The estimated cost is £7,000.

Grangemouth.—BRIDGE.—The bridge carrying Bo'ness-road over the railway is to be renewed, and widened from 30 ft. to 50 ft., at a cost of £11,630. The L.M.S. Railway Co. is responsible for renewal, but the Town Council for the cost of widening, which is estimated at £7,667.

Leith.—IMPROVEMENTS.—Authority has been received by the Leith Dock Commission to proceed with renewal work required upon the gates of the Edinburgh Dry Dock, at an approximate cost of £5,000.

Dunoon.—POOL.—The Town Council has instructed the Burgh Surveyor to prepare plans for a large swimming-pond proposed to be constructed in the East Bay, south of Port Riddell.

Kirkcaldy.—BATHS.—The Town Council has agreed to the erection of public baths.

Peterhead.—BUILDINGS.—The estimated cost of the new works to be erected by Messrs. Crosse & Blackwell at their fish-canning factory, the plans of which have been passed by the Dean of Guild Court, is approximately £8,000.

Obituary.

The death has occurred of Mr. James Milne, retired builder, of Kirkcaldy, at the age of eighty-four.

Mr. W. E. Wilson, art master, has died at his residence at West Albert-road, Kirkcaldy.

The death has occurred at Town Hall-terrace, Paignton, of Mr. R. E. Drew, aged seventy-three, a partner in the building firm of Messrs. C. & R. E. Drew.

The death has occurred at 20, Loraine-place, North Shields, of Mr. W. H. Park, aged seventy, painter and decorator, and a past President of the North of England Federation of Master Painters.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons', Bricklayers', Plasterers'.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	10½d. to 1/1
Airdrie	1/8	1/8	1/3	1/8	1/8	—	1/6½	1/3
Alexandria.....	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Coatbridge.....	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dumfries	1/7	1/7	1/6½	1/7	1/7	1/7	1/7	1/2½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dunfermline	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William.....	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3½
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½
Inverness	1/5	—	1/5	1/4	1/5	1/5	1/4	1/- to 1/2
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkcaldy	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkwall.....	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/0 to 1/3
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Motherwell.....	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3
Stirling	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Stirlingshire (Eastern District)	1/8-1/10	1/8-1/10	1/8	1/9	1/7	1/8	1/6½	1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 188.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	32	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	8	6
¾ inch on flats in two thicknesses	" "	6	3
Angel fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9	
Do 20 in. × 10 in. Do. Do.	"	80	9	
Do. 24 in. × 12 in. Do. Do.	"	90	0	

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0	
Do. joists	" "	5	6	
Do. roofs, floors, and partitions	" "	6	0	
Do. trusses	" "	8	6	

	¾"	1"	1¼"	2"
Deal rough close boarding per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

	¾"	1"	1¼"	1½"
Deal-edges shot per sq.		44/6	53/-	60/6
Do. tongued and grooved "		49/-	57/6	65/-
Do. matchings "	45/-	51/-		
Moulded skirting, including backings and grounds per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super.	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

	1½"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/4	2/6
Four-panel Do. "	2/5	2/8	2/11
Two-panel moulded both sides "	2/8	2/11	3/2
Four-panel Do. Do. "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

	1"	1¼"	1½"
Plain deal jamb linings framed per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers "	1/4	1/6	1/9
Add if cross-tongued "	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail: average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roof work	"	27	6

RAIN-WATER GOODS.

	3"	4"	5"	6"
Half-round plain rebated joints ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do. "	1/9	2/-	2/6	3/3
Rain-water pipes with ears "	1/9	2/7	—	—
Extra for shoes and bends each	4/4	5/11	—	—
Do. stopped ends "	1/11	2/4½	3/7	4/-
Do. nozzles for inlets "	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	61	6
Do. Do. in flats	"	60	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

	½"	¾"	1"	1¼"	2"	4"
Drawn lead waste per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service "	1/8	2/2	2/7	3/10	—	—
Do. soil "	—	—	—	—	—	6/9
Bends in lead pipe each	—	—	—	—	3/3	8/2
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6	—
Red lead joints "	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws "	—	—	—	14/7	19/6	—
Bib cocks and joints "	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints "	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	4
Do. Do. Sirapite	" "	2	7
Do. Do. Keen's	" "	3	7
Add sawn lathing	" "	1	7
Add metal lathing	" "	2	6
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8½
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Messrs. Hoyle, Barnett & Co., Ltd., paint and colour manufacturers, of St. Nicholas Chambers, Newcastle-on-Tyne, held their annual staff party in the schools at Hepworth recently. Mr. E. G. Barnett, Chairman of the company, presented a gold watch on behalf of the directors, and Mr. T. T. Walton a silver tray on behalf of the salesmen, to Mr. W. Telfer, who has spent 50 years in the service of the firm.

Sand-lime Bricks.

We have received from Messrs. H. Campbell & Co., of 20, Harp-lane, E.C.3, a leaflet dealing with the sand-lime bricks manufactured by the Briqueteries et Tuileries Silico-Calcaires de Coxyde, Belgium, who claim that their brick possesses a very great crushing resistance and that its employment ensures economy of labour and mortar, and, since the breakages are practically nil, of money. We understand that the longer it is exposed to the air the harder it becomes. The brick can be made in various colours, which are unalterable, the colouring matter being mineral and mixed in the mass; any shape and size can be made to the design of the architects.

Lifts.

The Medway's Safety Lift Co., Ltd., of 35, Surrey-street, W.C.2, state that Messrs. J. & E. Hall, Ltd., engineers, of Dartford, have acquired a controlling interest in their company and are taking an active part in the management. With these new facilities added to the knowledge gained by their long experience, the Medway company will be in the best possible condition to cope with the continuous expansion of the business. They are contractors to the Admiralty, the War Office, H.M. Post Office, H.M. Office of Works, and many of the principal railway companies and municipal authorities, for whom they have fitted every different type of lift service driven by electricity, hydraulicity, and hand.

Varnishes, Enamels, Paints.

We have received from Messrs. Sissons Bros. & Co., Ltd., of Hull, a copy of their 1926 blotter. While a very useful desk companion, it should serve to remind architects, builders and decorators of their products, which include Hall's distemper, an oil-bound water paint, "Rusticol" wood preservative, "Sacol" disinfectant, "Gen-a-Pur" varnish for general purposes, "Olac" and "Griffin and Shield" enamels, and all kinds of roofing, flat and glossy paints, stains, japans, &c.

A Correction.

We are asked to point out in connection with the description of the Liverpool Victoria Friendly Society's new building illustrated in our last issue, that the door springs are being supplied, not by the firm mentioned, but solely by Messrs. James Adams & Son, Ltd., to the architect's specification.

Diaries.

The sixty-third annual issue of the City Diary is now on sale, price 2s., at the office of the City Press, 148–9, Aldersgate-street, E.C. We understand that many changes were required and that the work of revision was continued until the eve of publication. Special features of the annual are lists of the Corporation; particulars relating to the City churches; and a complete record of the Masters, Wardens and Courts of the Guilds. As a diary it is excellent, for there is a daily cash column as well as memoranda space and a sheet of blotting-paper to each writing sheet.

The Southern Counties Federation of Building Trades Employers, of 43, Russell-square, W.C.1, has issued their diary and year-book.

The Stanton Ironworks Co., Ltd., of Stanton-by-Dale, near Nottingham, has sent us a neat pocket diary containing tables showing thicknesses and weights of pipes suitable for various test pressures. This firm has had long experience in manufacturing piping of every description, bends, flanges, caps, syphons and other ironmongery, and now prepare a road slag which is crushed, heated, screened and thoroughly mixed with tar or tar compound. It is made in all sizes from 12 in. to dust.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.

ARDROSSAN.—Houses on the Seton-street site for the T.C. Mr. J. C. Hunter, architect and surveyor Harbour Buildings:—

Digger, brick and concrete works—
*Wm. Gibson, Saltcoats £2,617 15 9
Carpenter, joiner and iron mongery works—
*Jas. Barbour, Ardrossan 1,808 5 9
Roof tiling and rough casting—
*Jas. Allison & Sons, Ardrossan 650 11 9
Plumber and gasfitting—
*John Lambert, Ardrossan 1,013 9 2
Plaster work—
*Wm. Sinclair, Saltcoats 392 0 2

ALFRETON.—Sixteen houses at Somercotes, for the U.D.C.:—

*Harris, Marchay £7,100

ASHFORD.—For (*a*) concrete foundations, (*b*) concrete pond, and (*c*) concrete road, for the U.D.C. Mr. H. Wilson, electrical engineer, 11, Bank-street:—

*H. Knock £1,779

BARKING.—Central school for 640 children, in Wilmington-gardens, for the E.C. Mr. C. J. Dawson, F.R.I.B.A., architect, Clock House Chambers. Quantities by Messrs. Gardiner & Theobald, 96, Gower-street, W.C.1:—

George Everitt & Son, Croydon £32,535
W. Sims, Stepney 32,325
Walter Jones & Sons, Ltd., London .. 31,239
Allen Fairhead & Sons, Ltd., Enfield .. 30,656
S. E. Moss, Southend-on-Sea 30,223
W. J. Cearns, Stratford 29,830
R. Ginn & Son, Hertford 27,499
*Myall Bros., Ilford 26,957

BARNSLEY.—Reinforced concrete work at conveniences, Peel-square, for the T.C.:—

‡Hodkin & Sons £1,247

BARRY.—Church building at the corner of Park-road, Barry Garden Suburb, for the Christian Fellowship. Mr. T. Alwyn Lloyd, F.R.I.B.A., architect, 6, Cathedral-road, Cardiff:—

Copp Bros., Barry £4,276 17 2
J. Cleak & Sons, Barry Dock .. 4,165 0 0
Alban Richards & Sons, Cardiff 3,994 0 0
Ernest Clarke, Westward Rise, Barry 3,739 0 0
Dan Francis, Barry 3,673 15 9
F. R. Absalom, Ltd., Penarth 3,471 1 10
H. S. Rendell & Sons, Ltd., Barry Dock 3,450 19 1
*Vickery Bros., Barry 3,399 7 10

BIRMINGHAM.—125 non-parlour type houses, Morcom-road, Greet, for the T.C. Mr. H. H. Humphries, City Engineer and Surveyor:—

*The Birmingham Estates Co., Birmingham.

BOLTON.—Seventy-two flats, for the C.B.:—

*Joseph Chapman & Son (Patricroft), Ltd., Patricroft £28,050

BOLTON.—Steelwork for the pump house at Lower Height Well, for the T.C.:—

*H. Peers & Co.

BOLTON-UPON-DEARNE.—Sports pavilion at the Welfare Ground, for the Miners' Welfare Committee. Messrs. Garside & Pennington, architects, Ropergate, Pontefract:—

Treherne & Co., Rotherham .. £3,002 0 0
P. Phillipson, Goldthorpe 2,973 3 2
W. Fuller, Wath-on-Dearne .. 2,739 5 0
Swift Bros. & Haslam, Doncaster 2,621 2 8
E. E. Dickinson, Ltd., Bolton-on-Dearne 2,551 5 0
A. Taylor & Sons, Wombwell 2,397 0 0
T. Wade & Sons, Wath-on-Dearne 2,390 4 0
*Leadley, Firth & Whittington, Doncaster 2,208 16 3

BRADFORD. — Reconstruction and extension, Dumb Mills, Trazinghall, for the T.C.:—

Mason work—
‡C. Booth & Sons £11,670 0 0
Joiner work—
‡T. Obank & Sons 2,544 13 3
Plumber work—
‡F. Studwell & Sons 1,850 0 0
Plaster work—
‡F. Mudd & Son 2,500 0 0
Slater work—
‡Hill & Nelson 361 0 0
Smith's and iron work—
‡H. Barrett & Sons 1,726 4 0

BRADFORD.—Douche baths at Margaret McMillan schools, for the E.C.:—

*R. R. North & Co. (*mason work*) £208
*S. Rushworth (*plumber work*) 199

BRADFORD.—Drying-room at Thackley Open-air school, for the E.C.:—

Mason, joiner and painting work—
*A. Robinson £223 14

BUXTON.—For (*a*) 20 parlour, and (*b*) 20 non-parlour type houses on the Heath Grove site, for the T.C.:—

*(*a*) Keenan & Yates, St. Anne's-on-Sea.
*(*b*) J. J. Barnsley, Worsley.

CARLISLE.—Convenience at St. Nicholas Corner, for the T.C.:—

*J. & R. Bell, Carlisle £410

CARDIFF.—Extensions and alterations at the Clare-road electric tram depot, for the T.C. Mr. T. Peirson Frank, City Architect. Quantities by the Architect:—

Foundation Co., London £30,735
F. J. Thomas, Cardiff 24,854
E. A. Bond & Co., Cardiff 24,606
Bradford & Davies, Cardiff 24,600
W. Symonds & Son, Cardiff 24,051
Watts & Gale, Cardiff 23,320
E. Turner & Son, Cardiff 22,977
D. Davies & Son, Cardiff 22,914
W. S. Thomas, Cardiff 22,678
Knox & Wells, Cardiff 22,560
E. O. James, Cardiff 22,474
*L. C. Taverner, Newport 21,942

CLUTTON.—Ten houses at Clutton parish, for the R.D.C. Mr. W. T. Hawker, Architect, Council Houses, Temple Cloud:—

Turner & Son, Bristol £7,012
Y. Rivers, Clutton, Bristol 6,348
*A. Penney, Stanton Drew, Bristol .. 6,300
Thornton Hall, Weston-super-Mare .. 5,700

CLUTTON.—Ten houses at Chew Magna, for the R.D.C. Mr. W. T. Hawker, Architect, Council House, Temple Cloud, near Bristol:—

— Paske, Chew Magna, Bristol .. £5,855 0
Walters & Son, Bristol 5,814 0
* — Clements, Dendry, Bristol .. 5,087 10
Thornton Hall, Weston-super-Mare 4,800 0

CLUTTON.—Ten houses at Farrington Gurney, for the R.D.C. Mr. W. T. Hawker, Architect, Council Houses, Temple Cloud:—

Walters, Bristol £6,380
Padfield, Shepton Mallet 5,600
James, Holecombe, Bath 5,180
M. Bailey, Chilcompton, Bath 4,960
Thornton Hall, Weston-super-Mare .. 4,750
*Leonard & Thompson, Bristol 4,350

DERBY.—Tenders recommended by the Corporation for the erection of houses:—

‡G. Beeson & Son, 24 pairs.
‡S. Gee & Sons, Ltd., 50 pairs.
‡Ford & Weston, Ltd., 20 pairs.
‡W. Walkerdine, Ltd., 25 pairs.
‡E. Morley & Sons, Ltd., 12 pairs.

DONCASTER.—136 houses on the Woodfield-lane site, for the T.C. Mr. R. E. Ford, housing surveyor, 3, Priory-place:—

Tibbenham Construction Co., London £84,585
J. Wimpenny & Co., Linthwaite, nr. Huddersfield 81,502
J. H. S. Randall, Ltd., Sheffield 77,520
Triangular Construction Co., East Molesey, Surrey 68,130
Flowitt & Gilbert, Doncaster 68,078
Thomson & Dixon, Ltd., Doncaster .. 67,808
J. Jackson, Thurnscoe, nr. Rotherham 65,915
Jaques & Greeves, Doncaster 64,676
Leadley, Firth & Whittington, Ltd., Doncaster 64,624
Sabin & Young, Scunthorpe 63,834
Swift Bros. & Haslam, Ltd., Doncaster 64,026
Swift Bros. & Haslam, Ltd., Doncaster 63,074
Hemsworth Bros., Doncaster 62,840
J. H. Metcalf, Doncaster 61,352
F. Bate, Doncaster 61,740
F. Bate, Doncaster 60,580
*W. & A. Forsdike, Ltd., Sheffield 59,937

DONCASTER.—School in Chequer-road, for the E.C. Messrs. T. S. Athron, L.R.I.B.A., and E. Vincent Dyson, A.R.I.B.A., architects, Dolphin Chambers, Market-place:—

Jackson & Oates, Goole £24,868 0 0
Dennis Gill & Son, Doncaster .. 24,417 0 0
Harold Arnold & Son, Ltd., Doncaster 23,946 0 0
Edcaster, Ltd., Doncaster 23,570 9 5
Flowitt & Gilbert, Doncaster .. 22,672 8 8
Jenkinson & Sons, Ltd., Doncaster 22,586 15 3
Wade & Boucher, Doncaster .. 22,510 18 0
Johnson & Moore, Doncaster .. 22,223 0 0
J. F. Wright & Sons, Leeds .. 21,985 0 0
Thomson & Dixon, Ltd., Doncaster 21,636 10 0
*Swift Bros. & Haslam, Doncaster 21,518 0 0

EASTBOURNE.—For new infirmary block and additions to the Nurses' Home, &c., for the B.G. Mr. F. G. Cooke, L.R.I.B.A., architect, 2, Hyde-gardens:—

Main Buildings—
*Peerless, Dennis & Co., Eastbourne £20,215 10
Hot-water Heating—
*G. N. Haden & Son, London .. 1,402 0
Electric Light—
*A. J. Bessant, Eastbourne 110 6
Temporary Chapel—
*W. J. Cearns, London 410 0
Architect's estimate 22,046 0
(Subject to the M.H. approval.)

EDINBURGH.—Filter house and settling tank at Gourlaw, for the T.C. Messrs. Leslie & Reid, civil engineers, 29, Waterloo-place:—

John Dennis & Co., Ltd., Dalkeith £3,396 12 5

EXMOUTH.—Fifty houses at Upper Marpool Park, for the U.D.C. :—
*Ratcliffe & Perryman £22,636
(In lieu of Harris Bros.' tender.)

FELIXSTOWE.—Public convenience, for the U.D.C. :—
‡Thurman, Ltd. £1,516

FOLKESTONE.—New out-patients' department wards, &c., for the Royal Victoria Hospital Committee. Mr. J. L. Seaton Dahl, F.R.I.B.A., architect and surveyor, Radnor Chambers. Quantities by Messrs. Gardiner & Theobald, 96, Gower-street, London, W.1 :—

Moss & Son, Cricklewood	£14,940
Parsons, Folkestone	14,500
Godden, Ashford	14,238
Browning, Canterbury	14,188
O. Marx, Folkestone	13,930
Sharman, Ramsgate	13,815
T. H. Denne, Deal	13,763
Hayward & Paramor, Folkestone	13,549
Denne & Son, Walmer	13,540
*Baker & Co., Folkestone	13,450

FRIERN BARNET.—Fifty parlour-type and twelve non-parlour type houses on the Hallwick site, and sixteen parlour and twenty-two non-parlour type on the North Ward site, for the U.D.C. :—
‡C. F. Day, Ltd., North Finchley .. £52,903 10

GELLYGAER.—For electric wiring for (*a*) 50 houses at Bargoed, (*b*) 60 at Pengam, and (*c*) 50 at Hengoed, for the U.D.C. Mr. P. Jones Williams, L.R.I.B.A., architect :—

(*a*) & (*b*) *Jones Bros., Bargoed—			
Non-parlour house	£5	10	3
Parlour house	6	2	6
(*c*) *E. G. Morgan, Ystrad Mynach—			
Non-parlour house	5	12	6
Parlour house	6	5	6

GLASGOW.—For trades in connection with the erection of a lavatory block at the Municipal building, for the T.C. :—

Joiner work—			
‡John Cochrane	£2,084	6	0
Reinforced concrete work—			
‡Melville, Dundas & Whitson ..	1,387	6	0
Asphalt work—			
‡The Limmer & Trinidad Lake Asphalt Paving Co.	237	9	1
Plumber work—			
‡H. Twaddle & Son	892	19	2
Plaster work—			
‡William Tonner & Sons	418	2	8
Marble work—			
‡Kean & Wardrop	587	5	6
Tile work—			
‡Kean & Wardrop	669	3	5
Glazier work—			
‡William Meikle & Sons	128	2	0

GLASGOW.—Steelwork for the electric sub-station at Tradeston Gas Works, for the T.C. :—
*Fleming Bros. £371 6 6

GLASGOW.—Reconstructing a ward at Ruchill Hospital for the purpose of an observation ward, for the T.C. :—
‡Matthew Henderson, Ltd., Glasgow.. £111 5

GLASGOW.—Heating work at the Bellefield Sanatorium, for the T.C. :—

Hugh Twaddle & Son, Glasgow	£16,031	7	2
J. Boyd & Son, Ltd., Paisley..	16,015	7	2
‡J. Cormack & Co., Glasgow ..	14,938	8	6

GLASGOW.—Venereal diseases clinic at Black-street, for the T.C. :—
‡R. Rogerson & Co. £10,552 1 6

HALE.—Air compressing station, disinfecting house concrete foundations and concrete walls, for the U.D.C. Mr. G. Midgley Taylor (Messrs. J. Taylor & Sons), engineer, Caxton House, S.W.1.
*C. Collins & Co., Radcliffe, Lancs £2,124 15 10

HALIFAX.—For (*a*) Branch library at Skircoat Green, and (*b*) the extension of the Technical College, for the C.B. :—

A.

*T. Boocock & Sons (*plumbers and glaziers*)	£128	10	6
*F. Pulman & Son (*joiners*)	198	9	6
*S. Barrett & Son (*slaters and plasterers*)	145	0	0
*Crossley & Radcliffe (*masons*)	986	18	6

B.

*S. S. Thompson & Son (*plumbers and glaziers*)	694	0	0
*S. Barrett & Son (*slaters and plasterers*)	355	19	0
*J. Lees & Sons (*joiners*)	880	0	0
*Pickles Bros. (*masons*)	1,675	0	0

(All of Halifax.)

HALIFAX.—Extension to the sub-station in Dryclough-lane, for the C.B. Borough Engineer, Crossley-street :—
*E. Waters & Co., Halifax.

KEIGHLEY.—Twenty additional scullery-type houses on the Broomhill estate, for the T.C. Housing Surveyor :—

Site clearing, mason's work, joiner's work, concreting, drainage, tar macadam footpaths, fences, and all foundations—			
*E. Turner, Ltd., Keighley	£6,207	15	11
Plasterer's work—			
*D. Antrum, Keighley	1,097	2	6
Plumber's work—			
*H. Mitchell	1,305	6	8
Slater's work—			
*Dawber, Townsley & Co., Ltd., Hull	713	15	0

LEIGH.—113 houses, for the Housing Committee :—
*A. James, Southport £49,316

LIVERPOOL.—Construction of a reinforced concrete bridge over Queen's-drive, at Briardale-road, Mossley Hill, for the T.C. City Engineer :—
‡R. & T. Howarth, Rochdale .. £5,358 15 3

LONDON.—Thirty-two tenements at Parmiter-street, Bethnal Green, for the B.C. Mr. E. C. P. Monson, F.R.I.B.A., architect :—
*W. Sims £23,002 8 11

LONDON.—Flat roof and other works to block "E," at the Bethnal Green Hospital, for the B.G. :—
*W. Simms, Stepney £3,920
(Subject to the sanction of the M.H.)

LONDON.—Conversion of isolation block "A" into operating block, at Western Hospital, for the M.A.B. :—

H. J. Goodman	£329
J. Darch, Ltd.	315
A. H. Inns, Ltd.	297
‡C. H. Boyd & Son, Ltd.	261

(All of London.)

LONDON.—New gate office, &c., at Colindale Hospital, for the M.A.B. :—

J. Darch, Ltd.	£793
Edwards Construction Co., Ltd.	650
H. J. Goodman	593
‡J. W. Buckingham & Sons	540

(All of London.)

LONDON.—Electricity sub-station buildings, in Holly-street and Gainsborough-road, for the Hackney B.C. :—
‡J. Jarvis & Sons £18,492

LONDONDERRY.—Water supply scheme for the Corporation.
*Staunton Ironworks Co., Nottingham £62,000

MANCHESTER.—Permanent way special track work (Contract No. 28), for the T.C. Mr. H. Mattinson, General Manager and Chief Engineer, 55, Piccadilly :—
*Edgar Allen & Co., Ltd., Sheffield (portion).
*Hadfields, Ltd., Sheffield (portion).
*Titan Trackwork Co., Ltd., Sheffield (portion).

MANCHESTER.—Painting the Union Offices, Cheetham Hill-road, for the B.G. :—
*Bell & Co., Manchester.

MEXBOROUGH.—Sixteen non-parlour type houses on the Harlington-road, for the U.D.C. Mr. G. Fenwick Carter, surveyor :—

J. Robinson, Denaby	£8,124	1	
Shepherd Bros., Goldthorpe	7,456	0	
Moody & Co., Rotherham	7,456	0	
G. & T. Tugby, Swinton	7,363	10	
O. Weaver, Mexborough	7,088	0	
*G. Meanley, Mexborough	6,912	0	

PETERBOROUGH.—For (*a*) 6 houses at Castor ; (*b*) 12 at Northborough ; (*c*) 8 at Glinton ; (*d*) 4 at Maxey ; (*e*) 4 at Etton ; and (*f*) 14 at Fengate, for the R.D.C. Mr. G. A. Penwill, architect, 22, Narrow-street :—

	Fengate (14 houses).	Maxey (4 houses).	Glinton (8 houses).	Etton (4 houses).	Northborough (12 houses).	Castor (6 houses).
R. S. Jellings	£6,105 10s..	*£1,851 ..	£3,591 ..	*£1,875 ..	£5,367 ..	*£2,676
John Cracknell, Ltd.	5,824 ..	2,117 ..	3,733 ..	2,171 ..	5,548 ..	3,177
J. Guttridge & Sons	5,888 ..	1,889 ..	*3,580 ..	1,898 ..	*5,337 ..	2,695
T. Measures	6,387 ..	— ..	4,131 ..	— ..	6,224 ..	—
T. Ellington	*5,723 ..	— ..	3,744 ..	1,960 ..	— ..	—
E. S. Ireson	6,559 ..	1,975 ..	3,807 ..	2,002 ..	5,875 ..	2,866

(*Accepted subject to M.H. approval.)

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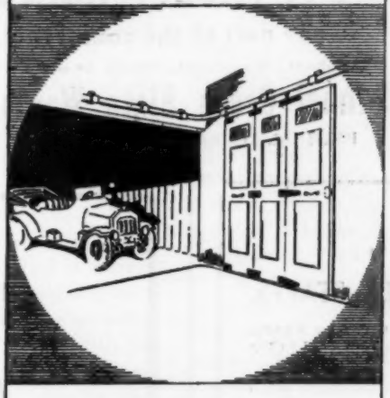

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MERTHYR.—Heating installation at the Central Police Station, for the T.C. :—

Musgrave & Co., Belfast	£155	0	
R. Alger & Sons, Newport	147	10	
*Haden & Co., Trowbridge	121	0	

MILEHOUSE.—Garage and workshop at Wolseley-road, for Messrs. Bawden & Pengelly. Mr. W. J. Pearce, architect and surveyor, Law Chambers, Princess-square, Plymouth :—

Pearce Bros.	£1,445
Solomon & Reeves	1,256
Jones & Son	1,140
Bickell	1,120
*E. Russell	925

(All of Plymouth.)

PONTEFRACT.—Alterations and additions to the Love-lane Council school, for the T.C. Mr. W. H. Newton, Borough Surveyor and Engineer :—
*Barber & Heseltine, Castle Moat, Pontefract £1,400

PORTSMOUTH.—For the rebuilding of "The Pure Drop." Mr. J. W. Walmisley, architect, 7, King's-terrace, Southsea :—

E. & A. Sprigings	£4,304
Jno. Croad	4,020
A. E. Porter & Son	3,981
F. J. Privett	3,877
Samuel Salter	3,797
John Lay & Co.	3,549
*Corke & Co.	3,399

PORTSMOUTH.—Repairs to landing stage, for the T.C. :—

Jno. Croad	£3,300	0	0
Playfair & Toole, Ltd.	2,994	18	5
‡Frank Bevis, Ltd.	2,850	0	0

PORTSMOUTH.—Painting South Parade pier, for the T.C. :—

E. Cook	£998	10	
Frank Bevis, Ltd.	805	0	
Carter & Sons	605	0	
Tanner Bros.	560	0	
‡Humby & Sons	450	0	

PORTSMOUTH.—Painting houses, for the T.C. :—

	211 Houses, Eastney.	43 Houses, Curzon Howe road.
*A. Sainsbury	£320 ..	£110

PLYMOUTH.—Twenty-four flats at Pottery Quay, for the C.B. Mr. J. Wibberley, Borough Engineer and Surveyor :—
*Plymouth Builders, Plymouth.

PLYMOUTH.—Various repairs to premises, for the C.B. :—

37, King-street, Devonport—	
*W. Richardson	£150
11 and 12, Cornwall-street, Devonport—	
*G. T. Gorvin	120
35 and 37, Tracey-street and Tracey Cottage, Plymouth—	
*W. Richardson	112
11, Summerland-street, Plymouth—	
*W. Richardson	135
4 and 5, Saunders-place, Plymouth—	
*W. Richardson	330

REIGATE.—For (*a*) four pairs of parlour-type houses on the Lodge estate, and (*b*) three non-parlour houses, in Church-road, South Park, for the T.C. Mr. Fred. T. Clayton, Borough Engineer and Surveyor ; quantities by the Borough Engineer :—

(*A*)

W. H. Brown (Leatherhead), Ltd., Leatherhead	£6,906
James Bodle, Ltd., East Grinstead	6,776
Nash & Gaunt, Redhill	6,675
Barnett & Knight, Redhill	5,900
S. H. Wray, Purley	5,890
W. Knight & Son, Reigate	5,632
John Crewdson, Horley	5,294
C. Payne, South Park, Reigate	5,268
*Atkinson & Potter Bros.	4,893

(*B*)

W. H. Brown (Leatherhead), Ltd.	1,965
Nash & Gaunt, Redhill	1,950
S. H. Wray, Purley	1,650
Barnett & Knight, Redhill	1,650
John Crewdson, Horley	1,600
C. Payne, South Park, Reigate	1,509
*Atkinson & Potter Bros.	1,397

REDCAR.—Premises, for the Working Men's Unionist Club. Mr. J. Jackson, architect, Marske :—
*G. T. Howel, Middlesbrough £2,000

ROTHERHAM.—Extensions and alterations to tramways depot, for the C.B. Mr. Vincent Turner, M.I.C.E., Borough Engineer :—

Reinforced concrete pile foundations—
*Simplex Piles, London £1,021

Steel frame—
*Redpath Brown & Co., Manchester.. 555

General builders' work—
*Chadwick & Co., Ltd., Rotherham 5,150

SHEFFIELD.—Plumbing and glazing work, for repairs, for the E.C. :—
*Braithwaite & Co.
*W. & E. Sadler.
*G. A. Simpson.
(All of Sheffield.)

SOLIHULL.—For (*a*) six non-parlour houses at Rising Bridge-road; (*b*) 12 at Earlswood, for the R.D.C. Messrs. Ewen Harper Bros. & Co., architects, Ruskin Chambers, 191, Corporation-street, Birmingham :—

(A.)

Bragg Bros., Ltd., Birmingham....	£2,970
C. J. Grove & Sons, Ltd., Knowle..	2,959
E. Thompson & Co., Ltd., Birmingham	2,958
J. T. Harris, Ltd., Birmingham....	2,940
*H. B. Tarleton, Redditch.....	2,910

(B.)

C. J. Grove & Sons, Ltd., Redditch..	6,350
Houghton & Sons, Ltd., Birmingham	6,300
E. Thompson & Co., Ltd., Redditch	5,940
Bragg Bros., Ltd., Redditch.....	5,820
H. B. Tarleton, Redditch.....	5,737
*E. L. Lewis, Redditch.....	5,670

SOUTH SHIELDS.—Electric wiring installation in 356 houses, for the C.B. Mr. S. G. Stanton, Borough Engineer :—
*Embleton & Barker, Gateshead.... £2,475 14

SOUTH SHIELDS.—Extension of foundations and flues for new boilers at the electrical station, for the C.B. :—
*Ainwick Construction Co..... £1,047 10 9

SOUTH SHIELDS.—Sub-station in Reed-street, for the C.B. :—
*Henderson Bros., South Shields .. £346 4 7

SOUTHPORT.—Engine house at the Bickerstaffe Pumping Station, for the Southport, Birkdale and West Lancashire Water Board. Mr. C. Burton Ede, Engineer and Manager, 14, Portland-street, Southport :—
*W. H. Davey & Co,. Ltd., Runcorn.

STAINFORTH.—Police station, for the West Riding C.C. Mr. P. O. Platts, architect, County Hall, Wakefield :—
*G. Porter.

STAPLEFORD.—Ten pairs of parlour-type houses, for the R.D.C. Mr. G. C. Hardy, architect, 11, Church-street :—
J. H. Widlake, Stapleford.
J. Rice, Chilwell.
H. R. Hofton & Son, Beeston.
F. Martin, Stapleford.
A. Martin, Stapleford.
Niblett & Barnes, Nottingham.
*G. Smith, Sawley.
(Accepted subject to the approval of the M.H.)

WORTHING.—Conveniences at Selden Lawns, for the Corporation. Borough Surveyor, Tudor Lodge :—
*F. Sandell & Sons, Worthing..... £1,600

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